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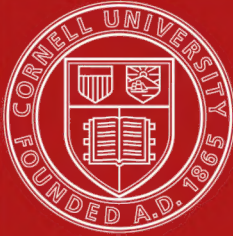
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Proceedings of the Federal Electric Rail



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PROCEEDINGS OF *The* FEDERAL ELECTRIC RAILWAYS COMMISSION

Held in WASHINGTON, D. C., during the months
of July, August, September, and October, 1919

===== *together with* =====
Final Report of the
Commission to the
President

—

IN THREE VOLUMES

VOL. 1



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INTRODUCTORY STATEMENT.

The Federal Electric Railways Commission was appointed by the President of the United States in response to a suggestion outlining to him the need of such a commission in the following letter from two members of his Cabinet, the Secretaries of Commerce and of Labor:

WASHINGTON, D. C., May 15, 1919.

DEAR MR. PRESIDENT: The electric-railway problem to which your attention has been called on several occasions has recently assumed such serious national proportions as to warrant the prompt attention of the Federal Government. Already 50 or more urban systems, representing a considerable percentage of the total electric-railway mileage of the country, are in the hands of receivers. The communities affected are among the most important—New York, Providence, Buffalo, New Orleans, Denver, St. Louis, Birmingham, Montgomery, Pittsburgh, Memphis, Ft. Wayne, Des Moines, St. Paul, Spokane, Chattanooga.

Other large systems are on the verge of insolvency, for the industry as a whole is virtually bankrupt. The continued shrinkage in the value of hundreds of millions of electric-railway securities held by savings banks, national banks, life-insurance companies and by the public at large threatens to embarrass the nation's financial operations. Furthermore, the withdrawal of this industry's buying power, which is said to rank third in magnitude, involves the unsettlement of collateral industries, naturally entailing labor dislocation that will affect hundreds of thousands of employees.

The return to normal conditions is being hampered and the efforts of the Government to avert strained conditions in finance, labor and commerce are being less fruitful of satisfactory results than should be expected, if some solution of the electric-railway problem were in view.

What the solution is, may, we believe, be evolved by a thorough investigation of general franchise and operating conditions in their relation to rates, including service-at-cost plans, State and municipal taxation, local paving requirements, and internal economies that may be effected.

We therefore propose and recommend the appointment by you of a Federal board or commission, whose duty it shall be to study and report upon the entire problem, in order that the State and municipal authorities and others concerned may have the benefit of full information and of any conclusions or recommendations that may be formulated. Such a study will, in our opinion, exert a helpful and constructive force in this critical period of the industry's existence, and will aid in the readjustment. If you would make such an appointment before June 30, your contingency fund could be used to defray the expenses, which would be about \$10,000.

The National Association of State Commissioners has always invited Federal aid in this matter and the recent Conference of Governors and Mayors adopted a resolution recommending Federal consideration of the problem of preventing the financial disaster threatening this industry.

We propose that such a commission shall be made up of one representative of each of the following groups:

Treasury Department or War Finance Corporation, Department of Commerce, Department of Labor, National Association of State Commissioners, American Cities League of Mayors, Amalgamated Association of Street & Electric Railway Employees, American Electric Railway Association, Investment Bankers Association of America.

We respectfully urge your authorization for such a commission, to be followed by your formal proclamation upon the selection of personnel.

Cordially yours,

(Signed)

WILLIAM C. REDFIELD,
Secretary of Commerce.

(Signed)

W. B. WILSON,
Secretary of Labor.

On May 20, 1919, the President cabled his approval of the foregoing plan for the creation of a Federal commission to investigate and report on the condition of the electric-railway industry of the United States; and on June 1, 1919, the commission was accordingly created by the President and the following members appointed to serve thereon without compensation:

Charles E. Elmquist, representing National Association of State Public Utility Commissioners.

Edwin F. Sweet, representing Department of Commerce.

Philip H. Gadsden, representing American Electric Railway Association.

Royal Meeker, representing Department of Labor.

Eugene Meyer, jr. (alternate, Louis B. Wehle), representing War Finance Corporation.

Charles W. Beall, representing Investment Bankers Association of America.

William D. Mahon, representing Amalgamated Association of Street & Electric Railway Employees.

George L. Baker, representing American Cities League of Mayors.

The new commission met on June 4 and organized by electing Mr. Elmquist as chairman and Mr. Sweet as vice chairman. The announcement was at once made that the commission would attempt to determine the general principles which should govern the regulation, operation, and service of electric railways, but that the commission was without authority to hear and determine specific local controversies, and that it would not interfere in any way with the functions of State commissions or of municipal authorities. The purpose of the commission is rather to investigate and study the condition of the electric-railway industry, including franchises, rates, taxation and assessments, economies of operation, public relations, etc.

The commission on June 28 appointed Charlton Ogburn as its executive secretary under a contract which obligated him "to conduct a thorough investigation into the condition of the electric-railway industry of the United States, both urban and interurban," employing the necessary experts to aid him.

The commission gathered its evidence in three ways: First, by means of public hearings at which large numbers of witnesses testified; second, by a series of questionnaires sent to every city in which there is an electric or interurban railway, addressed to the electric railways, the mayors, the chambers of commerce, and the central labor unions, and also to all of the State public-utility commissions; and third, by a personal investigation on the part of the executive secretary.

The first public hearing was held in New York on June 19, and the first witness was ex-President William Howard Taft. The next hearing was held in Washington on July 15, lasting two weeks, during which time the witnesses on behalf of the railways presented the evidence under the direction of the Committee of One Hundred of the American Electric Railway Association and its counsel, Mr. Bentley W. Warren. The next hearing was held in Washington beginning August 11 and lasting one week, at which time testimony was offered on behalf of the public, chiefly by representatives of the municipalities and of State public-utility commissions. The last hearing began

in Washington on September 29 and lasted one week, at which time testimony was offered by still further witnesses representing the public and by witnesses on behalf of labor, represented by the Amalgamated Association of Street & Electric Railway Employees of America. All of these hearings ran through day and night sessions, beginning at 10 a. m. and usually running until 10 or 11 p. m.

Three separate questionnaires were sent out, copies of which are included in these volumes. The first was a general questionnaire dealing with all phases of the situation. The last two were special questionnaires seeking traffic figures, month by month, for the past three years; that is, number of revenue passengers, amount of passenger revenue, fare charged, and a statement of any occurrences affecting traffic, such as strikes, influenza epidemics, etc.

At the conclusion of the final public hearing the commission engaged the services of Dr. Delos F. Wilcox to aid in analyzing the testimony gathered and engaged Dr. Milo R. Maltbie and Dr. Wilcox to advise with the commission relative to its report. Dr. Wilcox made a very comprehensive analysis of the evidence. The final meeting of the commission was held in June, 1920, at which time its report was made to the President.

All of this work was done on an appropriation of \$10,000 allotted by the President for this purpose.

CHARLTON OGBURN,
Executive Secretary.

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PROCEEDINGS OF FEDERAL ELECTRIC RAILWAYS COMMISSION.

NEW YORK CITY, *June 19, 1919.*

The commission met, pursuant to notice, at 10 o'clock a. m.

Present: Charles E. Elmquist (chairman), Edwin F. Sweet (vice chairman), Royal Meeker, C. W. Beall, L. B. Wehle, and Philip H. Gadsden, commissioners.

Appearances: Lewis Nixon, commissioner, Public-Service Commission, first district, State of New York; John H. Pardee, representing the American Electric Railway Association.

PROCEEDINGS.

The CHAIRMAN. This hearing is called by the Federal Electric Railways Commission for the purpose of hearing evidence bearing upon the general public-utility problem. A number of witnesses have been notified to be present and the commission at this time desires to know who are here and who wish to be heard.

Mr. TAFT. Mr. Chairman, I am here; though I do not come under the latter class, I am here very willing to be subjected to examination on what I know, without professing to know much. I report, therefore, here.

The CHAIRMAN. We will hear from you, Mr. Taft, as soon as the other appearances have been entered.

Are there any other appearances?

Mr. PARDEE. I am present, Mr. Chairman, representing the American Electric Railway Association, and at your convenience I desire to make a statement.

The CHAIRMAN. Are there any other appearances to be noted?
[No response.]

Now, Mr. Taft, we shall be glad to hear from you.

STATEMENT OF HON. WILLIAM H. TAFT.

Mr. TAFT. Mr. Chairman, I am at your disposition.

I had a call from Mr. Wehle saying that your commission would like to have an expression of opinion from me as to the present situation of the transportation public utilities, so far as I had observed them.

My chief opportunity for observing the condition in which those utilities now are has arisen from the work of the National War Labor Board, of which I have been one of the joint chairmen. That board was created for the purpose of maintaining, so far as possible, maximum production in war supplies, and our jurisdiction extended, by the proclamation of the President, to mediation in controversies arising in all fields of activity which would affect that maximum

production. The street railways and the suburban railways came within that field, by reason of the dependence of many of the large munition plants and other plants for making war supplies upon these transportation facilities for their labor. Where the street-car systems stop, where the suburban systems stop, the workingmen and working women were not able to reach their places of work, and it halted the production. In that way a great many cases came before us, and in the division of labor by the board the cases with respect to public utilities were referred to Mr. Walsh, my colleague, and myself, and, in many instances, the parties submitted the cases to us as sole arbitrators, which, of course, fixed our attention, in the distribution of work in the board, on these public utilities.

One of the great arguments which was made to avoid the increase in wages was the financial condition of the companies which made it impossible to grant any increase asked by the men; and the companies requested that we take that matter into consideration.

There is not any doubt that the financial condition of the companies had actually in the past—at least, that was my inference after hearing the evidence—had actually in the past kept down the wages of the men quite below the wages that were paid in fields of labor of a kindred nature, because these companies were in a condition where their backs were against the wall, and they maintained a position against increase of wages that was natural, where they saw bankruptcy in front of them; and they said, "No; we will not do it." The consequence was that we thought, from our consideration of the cases, that the wages in the public utilities were generally quite below what they ought to have been.

On the other hand, these matters were referred to us as arbitrators, and the issue then arose: Had we any right, in considering what wages would be fair, to take into consideration the financial condition of the company that was present before us as a party? And we had no hesitation in reaching the conclusion that labor was as much entitled to an independent consideration of what its wages should be as a coal man was who furnished coal or a material man who furnished iron; that that question must be determined by what was being paid in similar fields of labor. Therefore, we refused flatly from the first to consider the financial condition of any company in determining the rate of wages. Of course, had we done so, we would have been put in the further absurd position, which seemed to demonstrate the correctness of our original conclusion, that the man working for a company that had been badly managed and was carrying on the business under conditions that rendered it unprofitable for other reasons should be paid less, for the same work, than some company that had a profitable arrangement paid—less than the man who served with a company that was better managed and had a profitable arrangement. So that, on all sides, it seemed to us that that was the just conclusion.

We realized, however, in stepping into that field and increasing wages free from that "back-against-the-wall" position which the railway employers had had in the past—because we were acting as judges and as arbitrators—that we might bring about, inasmuch as wages formed a great factor in the cost of operation—that we might bring about financial trouble. Therefore Mr. Walsh and I first recommended to the President that he apply to Congress for power

to appoint a commission that should regulate the affairs, taking into consideration the increase in the wages, and submitted a statement to the President, which, however, for considerations that appealed to him, he thought it unwise to grant.

There was then presented a request by a committee of the railway employers—I do not remember the name, but Mr. Gadsden, who is one of you members, was, I think, the president of the association—in which the association asked that an advisory commission be appointed that should go about and relieve the public-utilities commissions from the political burden of granting an increase in the rates of fare by recommendation from a Federal source—a practical method of relieving the situation which appealed to Mr. Walsh and to me, with our previous political experience; and we urged that, too, and I went to Mr. McAdoo, and I also went to the Interstate Commerce Commission, which it was then understood the President was consulting in respect to the action that should be taken.

There was one other consideration I wanted to add: In every award that we made we encouraged a statement as to the financial condition of the company, not with a view of influencing our conclusion as to what the wages ought to be, which was the concrete issue before us, but in order that we might fully justify, if the case required it, any recommendation to the local authorities, and giving the weight of our recommendation, at least, to an increase in fares.

I am bound to say that that recommendation with State authorities not infrequently had weight. But when it came to local councils, or to referendum, it might just as well have been written in water.

Take the case, for instance, in Buffalo, if I may be pardoned an illustration. The submission to us there, by both parties, which gave us the right to arbitrate, was on condition that if we recommended an increase of wages there must be, before our award took effect, an increase in the rate of fare; and the State public-utilities commission granted an increase from 5 cents to 6 cents. Then some gentleman in Buffalo concluded that that was a matter that ought to be referred to the people of Buffalo, and he filed a petition with the council to have a referendum; and the question was one of law as to whether a referendum was required, and the case went to the court of appeals, and the court of appeals held that a referendum on such a petition must be granted, and it was granted. Without being exact as to the vote, my recollection is that the vote was 4 or 5 to 1 against the increase from 5 to 6 cents.

Then they appealed to us to intervene. We had no authority. The men struck and the people of Buffalo walked for a month.

I think it had some effect on the people, but I do not know that a referendum would reach any different result. That is an illustration, however, of the difficulties of the situation.

They did not pay any attention, in the referendum vote, to our recommendation.

All this, of course, brought us into more or less familiarity with the conditions of the companies who were parties before us; and, without being an expert in any financial matter, and certainly without being an expert in street-railway matters, I can only give you my general impression as to what the situation is. I am subject,

of course, to correction by gentlemen much more familiar with the field.

As I understand it, the street-railway situation to-day, including suburban railways, represents a field of business activity in which there has been invested at least \$5,000,000,000.

It is charged that there has been a good deal of watered stock, and doubtless there has been—not of very recent years, I should think, because watered stock, to be useful, has to be disposable; and I do not think anybody can dispose of street-railway stock except in banks that are run by gentlemen that have an optimism that would justify their being removed from the bank trust. That, of course, makes it most important that the situation should be considered in a large way.

The lines have been built on the theory that the business for short distances with a fixed fare be so large as to make up for the added expense of the long distance; and I do not think that has worked out.

The motives for extending the lines have been various. The building up of suburbs, the building up of subdivisions and, doubtless, the pressure of local authorities have all figured as causes for the extension of street-railway investments far beyond business justification. Then the Ford and the automobile have greatly reduced the business.

The CHAIRMAN. You say the Ford and the automobile, Mr. Taft?

Mr. TAFT. Yes. I think that the Ford has established a class by itself. I have one, and I never refer to it as an automobile.

The CHAIRMAN. It must be a very reliable conveyance.

Mr. TAFT. It is very useful. I have had it for five or six years, and I cherish it fondly.

The vast increase in the use of that method of reaching the center of business from the suburbs has certainly largely interfered with the revenue from passengers upon whose patronage the projectors of those enterprises count. Then there has been, growing out of corruption, the watering of stock, and the dealing with councils and the feeling of hostility on the part of the people against the companies—the development of a condition so that whatever advantages the companies may have secured by sinister means earlier have been more than offset by the injustices that the people have done, or that their representatives have done growing out of that past history, to these enterprises.

The truth is, gentlemen, and I am sure you will agree with us, that the condition of these investments and of this general transportation business of an urban and suburban character is most discouraging. If you can find a solution for it you will be entitled to the gratitude of the whole community.

I am personally much against government ownership, for the reason that I think it reduces the economy of operation and therefore greatly increases the cost of something that is essential to the people. On the other hand, the public have grown used to a fixed fare of 5 cents, and I think if you inquired of a great many of them you would find some such idea—not literally, but some such idea as that it was guaranteed to them in the Constitution; that anything above 5 cents would indicate a return to investors that is outrageous. It is a matter, of course, that can be demonstrated mathematically, by the cost of operation, and figured out. The cost of operation has

increased, of course, with the cost of commodities and the increase in the price of labor, and it is mathematically demonstrable. If you keep the fares at 5 cents, where they always have been—and even in some cities they have been 3 cents and 4 cents; in Detroit, notably, and in Cleveland—if you keep it there, the red balance is as inevitable as the rising of the sun to-morrow morning. It is inescapable. Then you are confronted with the limitation that if you raise the rate of fare you are likely to reduce the revenues by a falling off in your patronage. I think perhaps the advancing to 6 cents does not do that, and in some cases the advance to 7 cents; but anything beyond that is certain to reduce revenues by a loss of business.

You are met, of course, by the statement—and I do not wish to escape the force of the argument—that these transportation facilities are in the nature of roads. The public spends a great deal of money in keeping roads in condition, and those who do not have vehicles do not use the roads. It is contended that these electric railways only fulfill a function of the same kind, and that therefore the public ought to meet the deficit by taxation; and if it does it will naturally take over the management.

My feeling in respect to the general loss that is certain to be involved in public operation still makes me hope for some other solution than that of government ownership. That is a general statement, and I am ready to answer any questions, if I can.

Commissioner SWEET. I would like to ask one or two questions.

Do you not think there is a middle ground between government ownership and the present basis, or the condition as it would be by merely raising the fares? In other words, are there not things that could be done as regards, for instance, paving between the tracks, and various things of that kind, that might be borne by the general public without injustice, and at the same time relieve the corporations operating these railroads from a considerable amount of expense, and thereby help them to live and pay reasonable wages?

Mr. TAFT. Yes; that means reasonable franchises—reasonable in other respects than the amount of fare allowed to be charged. Yes; I agree to that.

They have a system in Cleveland of what they call “service at cost”—a division between the public and the company in respect of profits. I do not know that they go so far as losses, but the fare goes up automatically with the cost of operation. I am not sufficiently advised as to the details of that method to say much about it, except that the principle seems to be a wise one, except that you have those limitations that will insert themselves whether you will or not—that you can not charge too much or you will reduce your business.

Commissioner SWEET. Is there not a sort of injustice in the prevailing method in requiring street-railroad companies to pave between the tracks and for a foot or two outside, in that if they were able to make ends meet it would mean, in the final analysis, that that paving was paid for by those who patronized the street railroad and paid fares, and that the rest of the community, the automobile and the Ford owners, pay nothing?

Mr. TAFT. Yes.

Commissioner SWEET. As between the two parts of the community, would it not be more just that the whole community should bear the entire expense of paving?

Mr. TART. I think so. But I do not know how large a proportion of the expense that constitutes.

Commissioner SWEET. That is something we will have to discover?

Mr. TART. Yes.

Commissioner SWEET. Undoubtedly it amounts to a great deal of money?

Mr. TART. I have no doubt that it is a heavy expense, but how large a factor it would be in making the investment more favorable I do not know.

Commissioner SWEET. It would help some, anyway?

Mr. TART. Yes; certainly.

Commissioner SWEET. You said that you thought perhaps the raising of fares in many cases would result in the loss of patronage. Would it not be feasible to make a distinction between a short run—

Mr. TART. You mean the zone system?

Commissioner SWEET. Yes.

Mr. TART. I have always thought so. I thought so in the beginning, and theoretically that is true, and perhaps the railroads may devise some method; but they have gotten so used to the other method, and the complications arising from the zone system are so many that a good many practical railroad men fear that they can not put it into effect.

Commissioner SWEET. In the case you spoke of, of the extension of street railroads into the suburbs, where the business is rather light, people have built along these lines with a view of getting into the business center by the use of them. Would it not be inherently just that those people should pay both in accordance with the greater length of haul and greater service they receive for their money? Would it not be just, and, furthermore, could they not afford to do it, because of their living where the taxes are less, and so on?

Mr. TART. Yes; I agree to that. Yet, on the other hand, the very plan of going out into the suburbs, at a fixed fare, was held out to these people who went out there and promoted that avoidance of congestion or removal of the causes for congestion. Of course, that is a public matter. It is a housing matter that you would perhaps not wish to interfere with the good effects of.

Commissioner SWEET. Is it your idea that there would be a sort of moral obligation or a kind of implied contract with these suburban purchasers and builders?

Mr. TART. Well, of course, that depends upon the character of the suburban living. I mean if a man goes out to live there cheaply, in a small house, the matter of fare in and out is a considerable item to him. Those suburban residents who go out to get the air and build a good house can well afford to pay. But the greater the distance that a workingman can go, the more certain it is that he is able to get a healthful place to live.

Commissioner SWEET. From the standpoint of the revenues of a street-railroad company, raising the fares on a long haul, as we say, would be less likely, of course, to diminish the patronage?

Mr. TART. Yes; I agree to that.

Commissioner SWEET. In other words, people would not walk long distances. They would rather pay a cent or two more?

Mr. TAFT. That is quite true. You have the public there.

Commissioner SWEET. They have simply got to ride?

Mr. TAFT. Yes.

Commissioner SWEET. With regard to the short hauls, if I understand you correctly, you think that it is a serious question as to whether the patronage might not be reduced to the point where the net revenues of the company would not be any greater by increasing the fare?

Mr. TAFT. Yes; if you have a fixed fare. I think in the zone system you might, by having a smaller fare for the inner circle, maintain your receipts there, perhaps, dependent upon what you begin at; and then by increasing it, you do avoid, in the zone system, the reduction of fare.

Commissioner SWEET. From the consideration you have given to the subject, do you think the zone system is a good system?

Mr. TAFT. I think it should be tried far more than it has been.

Commissioner SWEET. You think it has merits?

Mr. TAFT. I think the other system was begun on a theory that has not vindicated itself. It has tended to convenience of operation, and it has accustomed the public to something it may be difficult to get over, and it may increase complications; but I think in the end it is bound to come, unless you have government ownership and taxation to pay the deficit.

Commissioner SWEET. If a public accountant were permitted access to the books of a street-railroad company and made a report that the public would have every reason to regard as honest and square, and the public recognized the fact that the earnings of the company were not sufficient to pay business expenses and pay a reasonable wage, do you not think then there would be a somewhat different attitude on the part of the patrons of the railroad companies.

Mr. TAFT. Yes, I do; and I think that may be heightened by this arrangement for a division of profits when profits are made, and possibly the sharing of losses when losses are made; that a thing that operates automatically like that is just like law, and people will follow it, yield to it.

Commissioner SWEET. But your idea, if I understand you correctly, is that the public mind must be convinced of the need of it before a raise of rates will be accepted?

Mr. TAFT. Yes. In Colorado I believe they had a riot over a rate of fare. I think it was in Denver. The fares went up 5 cents, and for a time, I believe, it produced a condition where they were not able to run their street railroads. That is my recollection of the case.

Commissioner SWEET. If I understand, Judge, you were one of the original projectors, in a sense, of this commission that is here to-day?

Mr. TAFT. In the way in which I have detailed it here. I am very glad it has been appointed. I think you have an opportunity to be most useful, even if you are doubtful of your own conclusions. You can accumulate a mass of evidence from men who know that will be very useful for the solution and the making of the public to know what the difficulties are.

Commissioner SWEET. I think that all the members of the commission would be very glad to have you give us your views as to the functions of the commission. We are just starting in our work, and we recognize the fact that the situation is rather acute and that action ought to be had as speedily as possible. Yet, on the other hand, we recognize the need of thorough action. The two things do not seem to jibe exactly. Now, will you tell us just about what you think the commission ought to do?

Mr. TAFT. I feel very certain that, no matter what people say, it is your business to find out the facts. Until you get the facts you are not going to be able to make any recommendations that are worth having.

Commissioner SWEET. Can you make that a little more precise, as to what facts you think we ought to ascertain?

Mr. TAFT. I think you should call the public-utility-commission representatives through the country, and perhaps the mayors, or, at least, those officials in the cities who have to do with the question of street railways, and, doubtless, you can call accountants who have been through street-railway accounts. I am not familiar with the details, but I am quite sure there is a great field of investigation that would be most useful in making up a general conclusion; and, being a Federal commission, you have the advantage of a remoteness from the subject matter in actual authority that gives your conclusions a much greater weight than if you were a State commission or a city commission, because one trouble about State commissions is the intervention of local politics and the doubt as to whether their conclusions may not be affected by other than the exact facts.

Commissioner SWEET. You had no thought originally of this commission having any authority to interfere at all in local problems, did you?

Mr. TAFT. Yes; I did; but that was under the pressure of war.

Commissioner SWEET. But not now?

Mr. TAFT. I thought, for instance, that if the bankruptcy followed that there were some symptoms of coming, it would be a very serious interference with the business finances of the country in time of war, and, therefore, that the President would be justified in asking Congress to enable him to take hold of the street railways that were needed to run the factories of the country engaged in war work and say to these local authorities: "During the war we are going to run these railroads, not by actual operation, but we are going to say, as a war measure, what these railroads shall have a right to charge." And I thought it would be quite within the constitutional power of Congress. I did not think the President had the power, but I thought it was quite within the constitutional power of Congress to give the President that power; and I felt certain that, in the general patriotic spirit that prevailed throughout the country, even the local feeling as to a 5-cent fare would yield.

Commissioner SWEET. But as the matter stands now?

Mr. TAFT. Now, of course, while we are still in a legal state of war, the situation is not such as to justify that legislation, and Congress, I am sure, would not feel like giving such a power in a mere nominal state of war, a state of suspended hostilities.

Commissioner SWEET. In that event our function would be to make the investigation and a recommendation as a result of it which would have a moral effect in the country and could be made the basis of settling local troubles?

Mr. TAFT. Yes.

Commissioner SWEET. Not by reason of authority that we might have, but because we had given an impartial investigation and made a report that commended itself to the country?

Mr. TAFT. Exactly.

Commissioner SWEET. That would be your idea, would it?

Mr. TAFT. Yes; and you will be a center through which you can interpret the general views of the public-utilities commissions and perhaps bring about a uniformity in dealing with the situation that would be most useful.

Commissioner SWEET. In cases that came before you, did you find that there were certain general elements that pervaded all of them, practically?

Mr. TAFT. About all of them; yes. This matter of labor was one. Of course, the expenses of materials were the same everywhere, taking into account transportation; and the element of human nature was exactly the same in one part of the country as in the other.

Perhaps the people in Massachusetts were more reasonable, and they began earlier to take over State control than other States; and there they have gone up higher in their rates of fare than anywhere else.

Commissioner SWEET. Did your investigation enable you to determine what proportion of the street-railway companies had watered stock?

Mr. TAFT. No. I think that they have been through a period in their history that has squeezed a good deal of the water out, and many of the railroads have been obliged, in their dealings with cities, to clear their skirts in that respect. There were a good many that came before us and proved what they had, and what they were attempting to pay dividends on they had fully invested in the property; but that did not overcome the history previously of dealing with councils and so on.

Commissioner SWEET. That prejudice would remain?

Mr. TAFT. Oh, yes.

Commissioner SWEET. Is it your opinion, Judge, that a physical valuation of railroad properties would be necessary, now, to satisfy the public before the patrons of the railroad companies would be satisfied to permit a raise in the rates of fare?

Mr. TAFT. The physical valuation of a steam railroad, where the steam railroad owns the right of way and everything on it is one thing, but a physical valuation of franchises and of the right to pass over streets, which can be withdrawn, presents so many difficult problems of valuation that I doubt very much the wisdom of it. I think the investment of actual money in what has been done is the only means of satisfying the public. When you come to estimate the value of a franchise which runs for 20 years, and which they could not get to-day, having greater value on account of its provisions given 10 years ago, the public is not apt to be satisfied with the thought that the road has got something out of the public in that franchise that is of high value.

Commissioner SWEET. Do you understand that any value would be attached to the franchise if you were seeking to get the actual investment—to learn what the actual investment was?

Mr. TAFT. No; I do not think so; but I think, of course, you might go into the actual investment and show that it was actually expended.

Commissioner SWEET. But is there not another phase of the question that really interests the public to-day even more than what figures of that kind would show, and that is that the problem is one between public ownership and operation on the one side or receiverships and failures on the other?

Mr. TAFT. Yes.

Commissioner SWEET. And that if railroad companies, these street-railroad companies, are to be operated by private corporations, these corporations must be put into such shape that they can secure new capital as needed for extensions and so forth, and they must, then, be on a paying basis in order to get that capital?

Mr. TAFT. You must; you must have reasonable interest, in view of the necessarily precarious investment that history shows.

Commissioner SWEET. You can not compel anybody to buy stocks in these companies?

Mr. TAFT. No; you can not. You can pay taxes, but that is the only thing you can do.

Commissioner SWEET. And in order to live they must be on a paying basis?

Mr. TAFT. Yes.

Commissioner SWEET. If that were clearly demonstrated, do you think that the general public would be willing to submit to a raise in fares, and perhaps assume the responsibility of more paving and things like that? Do you think they ought to be willing, whether they would be or not?

Mr. TAFT. Yes; I think they ought to be. But in talking with Mr. McAdoo, he referred to this psychological phase of the situation. You remember he had some correspondence with the President in regard to the very thing we are discussing—the importance of saving from destruction this five billions of money invested in public utilities, and he referred not only to street railways, but he referred also to gas companies, to electric-light companies, and to water companies. He said to me: “Our recommendations”—that is, his recommendation to the public in his letter to the President and the President’s concurrence in his view—“did have,” as I understood him, “a very considerable effect in making more reasonable the prices paid for light and water and the other things that are furnished by public utilities, except transportation.” “Now,” he said, “in my judgment the reason is psychological. People are not so sensitive about the payment of bills at the end of the month, but when a man gets on the car in the morning to go to his business or to go to work, or his wife gets on the car to go to market, and she finds that the price has gone up from 5 cents to 6 cents, necessitating the making of awkward change, and then she comes back from the market and the same thing is rubbed into her again, and that happens twice, and perhaps the children go to school, and that may happen 10 or 15 times in the family every day, the effect of the increase is naturally much more irritating than where the additional cost appears only in a monthly payment.”

Commissioner SWEET. Could not that be obviated somewhat by a general resort to the ticket system—selling so many tickets?

Mr. TAFT. That is what they do now, I think.

Commissioner SWEET. They do in some places. I do not think they do in all.

Mr. TAFT. I do not think they do in all; no.

Commissioner SWEET. Have you ever considered the question of the Government issuing, say, a 7-cent piece, or something of that kind, to facilitate the payment of these extra fares?

Mr. TAFT. That has been suggested—a 6-cent piece and a 7-cent piece; but it would be difficult to make them so different that there would not be confusion. Perhaps you might have a 3-cent piece that could be used, two of them for a 6-cent fare; I don't know.

Commissioner SWEET. I think some of the other members of the commission would like to ask you some questions. I do not want to monopolize you.

Commissioner GADSDEN. I would like to ask something, going back to the question of the increase of wages, about what was the percentage of increase awarded by your board on industry as a whole.

Mr. TAFT. Of course, the places differed in the rates. We fixed 48 cents as what we called the maximum in the larger cities, and we found that in those cities they ranged from 35 to 39, and some as high as 40 cents, as I recollect it; so that would represent the increase, probably, from 10 to 12 cents in 48 cents.

Commissioner GADSDEN. On 40 cents, was it not? It was an increase of 10 cents on the original 40 cents?

Mr. TAFT. Yes; the result being 48 cents.

Commissioner GADSDEN. Do you happen to recall what were the facts in connection with New Orleans?

Mr. TAFT. That was very low. I think we found it as low as 23 or 24 cents, or perhaps 25.

Commissioner GADSDEN. And the board put it up to about 42 or 43, did it not?

Mr. TAFT. Yes. I am not sure but what it was 45 cents.

Commissioner GADSDEN. About 65 per cent increase?

Mr. TAFT. Yes.

Commissioner GADSDEN. There were quite a number of cases ranging from 35 to 45 per cent increase, were there not?

Mr. TAFT. Yes. In the South, where the range of wages was lower, generally, we made a minimum, as I recollect it, of 40 cents—40, 43, 45, and 48, that was the range. In second-class cities we made it 45 cents.

I understand, now, that the Detroit Street Railway Co. has granted 60 cents to its men.

Commissioner GADSDEN. Do you think, from your experience in the study of street-railway questions, that any railroad can pay any such wage scale on a 5-cent fare?

Mr. TAFT. No; I should think not. Of course, that is a very general statement, and I would not like to be held to exactness in it.

Commissioner GADSDEN. I mean as a general rule.

Mr. TAFT. But our experience was, when we looked into it, that it would not be possible.

Commissioner GADSDEN. Is it not a fact that the industry was established on a cheap rate of fare and a cheap wage scale?

Mr. TAFT. It was.

Commissioner GADSDEN. And that the original 5-cent fare never contemplated any such wage scale as is now necessary to be paid?

Mr. TAFT. That is correct; or any such price of material, either.

Commissioner GADSDEN. Now, Judge, coming to the question of investment: The situation to-day, as doubtless your investigations have shown, is that the electric-railway industry has lost its credit?

Mr. TAFT. Entirely.

Commissioner GADSDEN. As a matter of fact, in order that this essential industry shall continue its service to the public, is it not necessary that its credit, its financial credit, shall be restored?

Mr. TAFT. It is.

Commissioner GADSDEN. Otherwise it can not get the additional capital to make its extensions and improvements and keep the service up?

Mr. TAFT. That is true.

Commissioner GADSDEN. That being so, I think this commission would appreciate very much your views as to the necessity of an adequate return on whatever the real investment is.

Mr. TAFT. That goes without saying. You have got to make the investment such that a reasonably prudent investor will be willing to engage in it, and you have to pay the prevailing rate which will give the prevailing income on such investment.

Commissioner GADSDEN. Is it not true that unless the public is willing that the industry shall pay a reasonable return on the investment, nobody else is going to put any more money into it?

Mr. TAFT. Yes; that goes without saying. I do not hesitate to answer it, but I think that is self-evident. Nobody who makes an investment is going to make it for philanthropic purposes, because business is business. If he is going to be a philanthropist, he is going to be a philanthropist in his own way, but when he comes to invest money, if the investment is to be attractive, it must be secure, and the more secure it is, the lower rate of income he is willing to take; and the precarious condition of the investment makes a high rate necessary in order to invite investment in such an enterprise as this. What I mean is that a reasonable rate is higher because of the insecurity of the investment.

Commissioner MEEKER. I would like to ask you a question, Judge. In regard to increase in wages granted by the board: those increases were quite generally based upon increases in cost of living, were they not?

Mr. TAFT. They were; yes.

Commissioner MEEKER. And, so far as it was possible to determine, the wage rate was fixed in each community in accordance with the increase in the cost of living?

Mr. TAFT. Yes; that was an element that entered into it. The principles of the National War Labor Board declared that there should be a minimum rate which should offer life in reasonable comfort.

Commissioner MEEKER. I think the commission would be interested if you would explain, in not too much detail, but the general

principles of arriving at a reasonable cost of living, or minimum of comfort standard.

Mr. TAFT. Well, we had a great deal of evidence before us, some taken by our own experts and others presented by the parties who appeared before us, and we had evidence to show that a family of five persons should have, as I recollect it, an income of \$1,760 a year to live in reasonable comfort. That was put in by the Amalgamated Association.

In the case in which that evidence was adduced—a New Jersey case—there was counterevidence introduced to show, by actual census of the men in the employ of the company, that 25 per cent of them were unmarried and that 75 per cent who were married only had average families of three and a half persons, and that there were supplemental wages from other members of the family that reduced the necessity for the full wage from the main breadwinner.

The board took up the question on a resolution that was introduced, but before we got through the discussion of the resolution I think the whole board saw a great lack of wisdom in our attempting to fix a minimum wage as a general rule of decision. We were acting as a quasi court and followed the experience of most courts in thinking it very unwise to attempt to lay down a rule of decision which should apply to different cases until we had heard enough cases to make an announcement safe, and therefore we never made one. In some cases we went as low, I think, as 36 cents an hour, and from that up to 42½ cents per hour in different localities for the minimum wage.

Commissioner MEEKER. Do I understand that the board did take account of supplemental wages in making wage awards?

Mr. TAFT. No; we did not pass upon the question at all. You asked me what evidence was before us. The argument, of course, which was made with respect to the five members was that if they did not have five members they ought to have five members, and that the rate ought to be fixed with a view to the encouragement of families. But our function was merely to adjust temporarily the situation in respect of the maximum of production, and as it would take longer than our jurisdiction was likely to last to have any effect on the increase in population, that element was not pressed.

Commissioner MEEKER. I think I have brought out the points that I wanted for the record in that regard.

Now, taking up service at cost, I understood you to express an opinion against the physical valuation of properties of street railways. Do you mean merely to exclude consideration of franchises?

Mr. TAFT. Yes. Of course in service at cost—in Cleveland, at least, and that is the case that is most concrete in my mind—I think they agreed on valuation of the actual money invested by the company, and then they had a provision for the borrowing of money for additional improvements, and the payment of a fixed rate of interest on that, and then the raising and lowering of the fares as the result of operation justifies.

Commissioner MEEKER. I am a little bit suspicious of automatic arrangements. Perpetual motion does not seem to me to be a very practical thing.

Mr. TAFT. I may say that Mr. Squires, who is the counsel for the company, did not give us any great encouragement as to that, because he did not think it was useful. They have a system in Chicago in-

augurated, as I recall, on a contract drafted by Mr. Walter Fisher, which enables the city to share in profits, but I do not think that is service at cost.

Commissioner MEEKER. In what respect would a service-at-cost plan be superior to government or public ownership? Is not the incentive of excellence in private management pretty largely squeezed out of a concern that is guaranteed a fixed return on its investment?

Mr. TAFT. Oh, no; there is no guaranty, except in the result that comes from an increase in the fare, and you have private ownership.

Commissioner MEEKER. I wish you would follow that up.

Mr. TAFT. I do not mean private ownership; I mean private management. The question of private ownership and public ownership of the physical property is a different one from that of private or public operations. My objection is chiefly against public operation.

Commissioner MEEKER. You think that the private management on a cost-of-service plan would be superior to public management?

Mr. TAFT. I do. I do not know that it would be as good—I am quite willing to concede that there may be factors making for less activity on the part of private owners in a service-at-cost plan than where they can take all the profits that they can make.

Commissioner MEEKER. But you think that the stabilizing of the industry would counterbalance the evil effect of taking away the possibility of large profits?

Mr. TAFT. Yes.

Commissioner MEEKER. And by improvements in the management, in the equipment, and so on?

Mr. TAFT. Yes.

Commissioner MEEKER. I would like to ask about repeals or unjust taxation. Do you think that would relieve the companies?

Mr. TAFT. You mean taking out the cost of paving, and that sort of thing?

Commissioner MEEKER. Yes. Do you think that would relieve the street-railway companies to any great extent?

Mr. TAFT. I am unable to answer that. I question it. Street-railroad men, however, know about that, and I do not. I only know that whenever the argument has been made by street-railway-company management, that plays a good deal of a figure in the argument. How much of a part it would play in the actual calculation I have not investigated sufficiently to answer.

Commissioner MEEKER. That is something for this commission to find out?

Mr. TAFT. Yes.

Commissioner MEEKER. Returning again to the physical valuation of property, I take it that you think it advisable to get a physical valuation of property, excluding franchises, of course?

Mr. TAFT. Yes; the actual investment.

Commissioner MEEKER. Suppose that such a valuation shows that the outstanding capital, including bonds and stock, is not excessive; that is, the par value of outstanding capital would be no more than equal to a reasonable valuation of the property? From your investigations, do you think, then, that that indicates that the company is entitled to earn upon its physical valuation? What I have in mind is this: Has the public already purchased that outstanding capital and the investment by paying fares, in times past, that were simply

put in in improvements on the property instead of being declared in dividends? Have I made myself clear? In other words, has the public already paid a considerable part of the investment in the street-railway corporations?

Mr. TAFT. I do not see how that view can be justified. They pay fare, and the company earns an income on what has been invested. I assume that, naturally, there is a great depreciation in the value of the property that constantly needs repairs and renewals, and therefore I should think that the fares which have been paid should be held to be nothing but a return on the investment from year to year.

Commissioner MEEKER. Might not the fares be sufficient to return a reasonable return upon the actual investment and also to lay aside a renewal fund that would be put back into better equipment, better rails, and so on, which would be paid by the public in fares, and which would now be counted as a part of the actual physical property of the company?

Mr. TAFT. No; I do not think that would belong to the public. I think it would belong to the man who made the original investment; because in any business, as I understand it, there should be a renewal fund, what is called a depreciation fund. They make an allowance for depreciation each year, in order to maintain the level of their investment.

Commissioner MEEKER. I do not think I have yet made my point clear. Suppose that, in addition to a reasonable depreciation fund which would maintain the property at its full value, its full efficiency, suppose there was an excess over that that was put into new equipment, and even extension of lines, without an additional investment on the part of investors at all—stockholders or bondholders—but simply taken out of the excess earnings of the company; do you think that such properties, if there be such, in your opinion, are to be justly credited as the property of the company?

Mr. TAFT. I should assume that was the basis of the original contract, the basis of the investment. I should also assume that there are not many instances of that kind.

Commissioner MEEKER. That is what I am trying to get at.

Mr. TAFT. Perhaps I ought to go on and say if there were that the change in ownership from time to time would create a new condition, back of which you ought not to go, in equity. I think you ought to take into consideration that these properties do change hands, and that the people who are now sweating are not the people generally, who were guilty of those original "rich" investments that have so reflected on the character of the investment, in stirring up hostility of the people.

Those statements are general statements. I could not give you any details to justify them; but that is my impression.

Commissioner MEEKER. I think you amply protected yourself, Judge, when you disclaimed being an expert; but I would like to ask you another question—

Mr. TAFT. In other words, I think that those people who water stock and engage in other transactions that give property a meretricious value, get out from under the load as promptly as possible, and allow others to bear it. I think that is generally the history of these transactions that can not be defended.

Commissioner MEEKER. There is one other question that I would like to ask you. Do you think it is possibly more hopeful to look to improvements in the equipment of the street railways to cut down operating expenses? Do you think we should look to that for relief of the street-railway companies, rather than to the repeal of unjust taxation, unjust paving conditions in the franchises, and so on?

Mr. TAFT. To say the truth, I think one step is a reorganization of all the companies, and the power to give up unprofitable lines that ought never to have been built. That is going on in Massachusetts. There was a furore at one time in building all sorts of lines that never ought to have been built, and if the street-railway systems of this country are to be saved, I think they have got to cut to the quick with reference to many lines that were unwise in their projecting and that it is now unwise to continue, so that they may get down to a solid foundation, and then, from that on, make contracts with the public which shall secure a fair return on one side and proper service on the other; but, of course, that will inconvenience quarters where there is not the business to justify the railway, and will affect the price of property there; but I do not see how that result can be avoided.

Commissioner BEALL. I would just like to ask you this, in coming back to the reestablishing of the credit of the properties of street railways, which is now utterly destroyed, so that they can obtain money, not only for their current needs, but for the future development of the properties from time to time. Do you not think that any plan of that kind has to be permanent, in the view of the public and in the view of the men to whom you must go to get funds? That is, no temporary increase in fare, for instance, if you wish to take that for a moment as a solution, will do. It must be something that the investor feels is permanent; that it is not only good to-day, but that it is a plan that is good for 10 or 20 or 30 years hence. When you go to an investor for money, if you sell him stock that never matures, his investment is permanent. If you sell him bonds, depending on the financial terms it may run anywhere from a year to, say, 30 or 40 or 50 years, if they can borrow the money for that length of time. Now, does not a plan have to provide something that the investor feels will make him secure permanently, that the public feel they are going, under that plan, to get proper and reasonable service, and that all the laboring men will feel that they are going to be taken care of? In other words, has not the solution got to be in a permanent form, and not just simply a makeshift?

Mr. TAFT. I agree; but the permanent form may not be in fixing exact terms.

Commissioner BEALL. No; I do not think you can.

Mr. TAFT. But in placing the authority to deal with the situation in a body sufficiently removed from the influences we have been discussing to act with impartiality.

For instance, the State commissions, I believe, are much better qualified to act in matters of this sort than local councils or local authorities. I think that the suburban business and the relation of one town to another, and the general condition in the State will so affect street-car fares and street-car management that it might well be under a State commission rather than under the local commission.

Commissioner BEALL. Do you favor that, Judge? Of course, you have always got to have a supervising body and regulation. That is just and proper. We all recognize that. But do you think that the determination of fares from time to time, for instance, should be left to the State commission rather than to some such arrangement as they have in Cleveland and Montreal and various other cities not only here but in Canada, where their fixed return is given on what has been determined to be the money investment in the property—if the revenue falls below that amount then the fare is automatically increased, or vice versa, and if your receipts exceed the determined return on your capital, then they fall to the lower level?

Mr. TAFT. That, theoretically, is a good plan. Before I adopted it, however, I would wish to examine into its exact operation in the cities that you have named.

Commissioner BEALL. I know both cities very well.

Mr. TAFT. I think you will find a difference of opinion in Cleveland; and that is the only one that we have before us.

Commissioner BEALL. The trouble in Cleveland was—one trouble—that the fare was limited?

Mr. TAFT. Yes.

Commissioner BEALL. That was the trouble?

Mr. TAFT. I agree.

Commissioner BEALL. When you get to a certain point, you could get no higher?

Mr. TAFT. When you got up to 4 cents, you could not get any higher.

Commissioner BEALL. In the city of Montreal, Canada, there is no limit. The city and Province recognize the right of an investor or a man in the public who chooses to put his money into street railways on a given return, and no matter if the fare has to be 10 cents, it will be made 10 cents, because it is service at cost, and that is what it costs the company to give that.

Mr. TAFT. My mind inclines in that direction.

Commissioner BEALL. You have had such vast experience in looking into these things that we would like to get your views.

Mr. TAFT. I have been fortunate enough never to have had any investment in street railways.

Commissioner BEALL. But you know the experience of those who have?

Mr. TAFT. Yes; I do; I do. There has been nothing quite so trying to me in the last year as meeting gentlemen whom I have known well and for whom I have entertained the friendliest feelings and finding that they were interested in street-railway property. The subject matter was not exhilarating, I found.

Commissioner SWEET. In view of your quasi-parental relation to this commission, would you recommend that we should go at all into the subject of past profits of these companies?

Mr. TAFT. If you do you will never get down to business. I can tell you that.

Commissioner SWEET. Can you see any profit in an inquiry of that kind, in relation to the question that we are really to consider?

MR. TAFT. I do not mean to say that there may not be instances in which you ought to go back, just to determine the facts that you are trying to find out; but to entertain evidence of the corruption and the methods of 10 years ago, or 20 years ago, and the history of transactions that have been made the basis for hostility to street-railway companies, will occupy all your time, so that you will never get down to the real question; and I think you could separate the two by finding out what is the actual money that is invested now.

Commissioner SWEET. The real question now has very little relation to big profits or corruption that may have been received or practiced years ago?

MR. TAFT. Except in its psychological effect upon the attitude of the public.

Commissioner SWEET. Is it not an old sore that had better be left alone?

MR. TAFT. We declined to go into it.

Commissioner SWEET. Don't you think we should decline to go into it?

MR. TAFT. Yes; I do.

Commissioner SWEET. I wanted to get your opinion on that.

MR. TAFT. I am speaking generally. I do not mean to say that you may not have exceptional cases that do require your going back. I think it is generally accepted, and I do not think if you would call upon steam-railway men they would hesitate to admit, just as it is a matter of which you can take judicial notice, that the steam railways of the country abused their privileges until they roused the public, and now the condition has been brought about in which the public has had—I do not know but it is changed now—but they have had a feeling of hostility that has led them to extremes in dealing with the steam railroads, and to injustices.

Commissioner SWEET. But the great problem now, and the one that you would contemplate at the start, does not practically involve that question?

MR. TAFT. No; I think you can escape it.

Commissioner SWEET. I think so.

Commissioner WEHLE. Have you given thought to the question as to what should be done in cases where the franchise is a long-time franchise which strictly limits the company to a lower fare than it should economically receive?

MR. TAFT. Yes; I have. Of course, you can hold the company to it. It is a contract.

Commissioner SWEET. Unless it dies.

MR. TAFT. The public can hold the company. But a bankrupt tenant is not a very useful occupant of your building, and a company that is bankrupt and has not the means with which to render the service which the franchise was granted to secure is of no use to the public. You are a lawyer, Mr. Wehle, and understand, of course, that the contract does not work both ways. What I mean is that you can hold a company to a franchise and the company can hold the public to the franchise as long as the term fixed in the contract, but the legislature, acting for the municipality with whom the franchise was framed under the statute, may repeal the statute or may destroy the contractual effect of the franchise by merely waiving it, because

it may act for the municipality by whom the franchise was granted and with whom the contract of the franchise was made; so that there is no constitutional difficulty.

Commissioner WEHLE. That would point again, would it not, to the State public-utility commission being vested with the power to deal with these questions, and possibly to waive conditions in franchises?

Mr. TAFT. Oh, I think so. If you are going to have any reform at all, you should have power on the part of the public authority to act and clean the situation of past competitions. Of course, I would not let up on a company that was able to carry out a contract and that had made it in the face of conditions; it should perform its contract. But questions of public expediency enter in there.

Commissioner WEHLE. And as a general proposition you would say that the local municipal authorities should be eliminated with respect to the power either to enforce franchises or to waive conditions in franchises?

Mr. TAFT. I think at least there ought to be an appellate jurisdiction in State boards of public utilities.

Commissioner WEHLE. We have had some reference here to the service-at-cost plan, and that suggests an analysis of the cost of the service; and there has been some reference here to the element that taxation plays in the cost to the street-railway companies in conducting their business. Would you state, for the enlightenment of the commission, something of your views with respect to the question, On what theory should the street-railway companies be taxed?

Mr. TAFT. I never have been able to see why street-railway companies should be taxed by any other rule than that under which other invested capital is taxed. You can tax them by income, you can tax them by a percentage of the amount invested. Those are the two methods; and I think that simplifies the methods.

What you are going to find, if you have this percentage tax, is that the value of the street railways will be taxed at a higher rate—I mean the property of the street railways will be taxed at a higher assessment than the real estate of the ordinary taxpayer—and perhaps, therefore, it is a fairer method to tax by income. I suppose you could not tax by income only. You would have to have both systems of taxation.

Commissioner WEHLE. Your thought on this subject has suggested to me that possibly, in view of the fact that you regard the street-railway service as, in a way, similar to the service of conducting a public road——

Mr. TAFT. I only mention that as an argument in favor of taxation to meet the deficit, if it be inevitable, of running suitable street railways.

Commissioner WEHLE. The thought was suggested to me that possibly you would view any tax that goes beyond the necessity of meeting the expense of the State with reference to the property itself as poor public policy. Is that your view?

Mr. TAFT. Well no; because I think those who get any profit out of it ought to pay the same taxation that men who make a profit out of other businesses pay.

Commissioner WEHLE. When you come to analyze the nickel or the 7 cents that goes into the conductor's hands, and see what it pays for, does it seem to you that the element of taxation that is repre-

sented in that fare should go beyond paying for the conducting of the property itself, as it affects the State or the municipality?

Mr. TAFT. I confess that if a man owns stock in a street railway and the stock pays him, I do not see why he should not pay taxes on that income, or on the value of the stock, just as if he had an investment anywhere else.

Commissioner WEHLE. That suggests taxing the stock or the income, rather than the property itself?

Mr. TAFT. Yes, it does; and I think the greater uniformity you make in taxation the more likely you are to reach justice, and therefore if you treat shares of stock in street railways just as you do shares of stock in a manufacturing corporation, or in any kind of an enterprise, I think you are more likely to do justice; and you create a simplicity which is merely likely to lead to justice or a just operation.

Commissioner WEHLE. That is, by making the taxation come upon the shareholder or the bondholder, who obtains income out of the property, rather than on the property or the franchise itself—you would think that was the direction in which to go in the matter of taxing public utilities?

Mr. TAFT. You are there confronted with a lot of questions of expediency in taxation—the ability to find the bonds and tax them, or the inability to find the bonds and tax them, is one thing. You have got the railroad right in front of you. You have the wires, you have the electric-power plant, and with some experience in levying taxes, I do not think that clearness of view that the State has of the actual property ought to be given up as an advantage. I think it ought to be reconciled, as it seems to me it might be, with treating that property just as you treat any property in corporate ownership. For instance, manufacturing corporations do not pay on stock, all of them, but both on the property they own and on the stock they own, do they not?

Commissioner WEHLE. Yes.

Mr. TAFT. Of course, taxes vary so in different States that it is difficult to state generally.

Commissioner WEHLE. Do you think, from your observation, that there has been sufficient control of stock issues by public-utility companies, and particularly electric-railway companies?

Mr. TAFT. No, sir; I do not know but there is now, but I think that has been one of the sources of the difficulties in which we have found the situation. I have always been in favor of the Federal incorporation of steam railways engaged in the business of the country, and if you have Federal incorporation, I think you ought to have a limitation of the power to issue securities. I think the great abuses that have arisen in the management have been in the unwise and often the fraudulent use of such securities. I do not think now that that is the case. I think there are limitations in the various States.

Commissioner WEHLE. Do you think those are sufficient, as you have seen them?

Mr. TAFT. No; I think there ought to be a uniformity produced by putting those interstate railroads within the Federal authority.

Commissioner WEHLE. One of the phases of the present situation seems to be that equities have been created in innocent holders of

stock which the public has an obligation to recognize in dealing with the company, and yet the stock itself was not legitimately or justly issued.

Mr. TAFT. That is very true.

Commissioner WEHLE. Can we approach the situation at all without having that condition positively prevented in the future?

Mr. TAFT. I should think you ought to have a recommendation that no company should be permitted to issue either stock or bonds without a certificate issued by the public-utilities commission justifying the issue, and knowing what the money to be derived from that issue is to be devoted to.

Commissioner WEHLE. One more question. You suggested earlier in the hearing that it seemed to you that possibly 7 cents for a maximum fare, beyond which the companies could hardly go without incurring a diminution in business, was the limitation which would be found?

Mr. TAFT. That is, within urban limits.

Commissioner WEHLE. Yes.

Mr. TAFT. Of course, when you get outside of the city into what is called the suburban line the rate goes up just as it does on steam railroads.

Commissioner WEHLE. Yet the present increase in costs seems to suggest the possibility that even with respect to urban business the 7-cent fare may not prove economically sufficient. According to the contention of some of the owners, it is not sufficient to-day, and will not remain nearly sufficient—or even 8 cents.

Mr. TAFT. If they say that, then I would ask them what their suggestion is.

Commissioner WEHLE. I was going to ask you, Mr. Taft, what your suggestion is.

Mr. TAFT. That is a limitation upon your useful field. You are dealing with human nature.

Commissioner WEHLE. But at that point, Judge Taft, comes the place where, as a matter of public policy, we must avoid congestion in the cities?

Mr. TAFT. Yes.

Commissioner WEHLE. Where it must be made possible for these lines, in some way, to give this service, and where there is a margin that seems to be almost unabsorbable by private initiative in order that the people should have the sort of service, and the city should have the sort of life that ought to be produced.

Mr. TAFT. I agree. That is the limitation of the situation. It is part of the problem that makes it very difficult to solve.

Commissioner WEHLE. Is that the point at which you stop—in that area of the unabsorbable margin—where you believe the municipality or the State should come in and assist in a joint partnership? Is that the idea that you were expressing?

Mr. TAFT. Yes. I do not know that I would limit it. I think if the system proves good you might make the existence of that a condition—I mean the service at cost; because the effect of the service at cost is not alone to meet a situation such as you describe, but it is also useful in dealing with the public and reconciling them to the result. If their auditors have a part in the management, so far as the examination of accounts is concerned, with certain restrictions

that they may impose as to the operation of the railway, and that is done through their own officers, they are much more likely to be reasonable than when they are on one side and the company is on the other.

Commissioner WEHLE. At that point, then, you would suggest that the problems of administration, in such a way as to insure the public the proper use of the funds which the public might come to invest in street-railway service, could be solved, by having a joint control or a joint directorship?

Mr. TAFT. No; I would not call it joint; but I would call it a directorship subject to the complete knowledge and certain limited supervision of the management of the finances of the company.

Commissioner WEHLE. That is all I have to ask.

The CHAIRMAN. Commissioner Nixon, do you wish to ask any questions of Judge Taft?

Commissioner NIXON. No.

The CHAIRMAN. Judge Taft, in dealing with the question of labor and wages, did you find that an effort was made by those interested in securing higher wages to demonstrate that the street-car companies could effect economies in operation that would permit them to pay a higher wage without increasing the fare?

Mr. TAFT. No, sir; I will not say that somebody did not say that in argument, because it would be unwise to say that the argument did not have a very wide range; but there was no serious contention on that point.

The CHAIRMAN. Was any effort made by anyone to present evidence to your board to show how that can be done?

Mr. TAFT. No.

The CHAIRMAN. In determining the question of wage, did your board consider that it was making a temporary adjustment only?

Mr. TAFT. Of course, we were making a temporary adjustment, because that is all our jurisdiction was. Our orders only lasted for six months, or during the period of the war; that is, we gave the right to both sides to come before us and ask for a readjustment at the end of six months.

The CHAIRMAN. And your wage was based upon the cost of living at the time the problem was before your board?

Mr. TAFT. Yes, sir.

The CHAIRMAN. How far back, in making the study of the cost of living, did your board go?

Mr. TAFT. We had the benefit of the findings of what, for lack of a better recollection, I call the Secretary Lane Board, which fixed the rates of wages for the steam railways, and I think that went back to January, 1915. I think it was January, 1915.

The CHAIRMAN. Then the study of the living cost was continued just during the war period?

Mr. TAFT. Yes. Of course, one war period differed from the other. I mean, the war period abroad, and the war period with us, after we got into the war; it was different, of course.

Commissioner MEEKER. May I make a suggestion there, Mr. Chairman? I think your board, Mr. Taft, also made use of the cost-of-living figures which the Bureau of Labor Statistics collected in shipbuilding centers.

Mr. TAFT. Oh, yes.

Commissioner MEEKER. That was based on 1914.

Mr. TAFT. Was it? It went back to 1914, did it? I had forgotten.

Commissioner MEEKER. Yes.

The CHAIRMAN. Did your board, Judge Taft, consider whether the wages which existed prior to the European war were just and ample to meet the conditions?

Mr. TAFT. I do not think they were; I do not know but that we expressed an opinion that they were not. I think we did express the opinion that they were not, for the reason that I have already suggested, namely, that the conditions of the field were such that the employers were very obstinate in viewing an increase of wages. When I say "obstinate," you understand what I mean—they felt that if they went on they would seriously injure the value of the investment.

The CHAIRMAN. What influence will your wage adjustment have upon the future wages of employees in this class of service?

Mr. TAFT. Well, it opened the subject up; and I have no doubt that it has established a more or less permanent standard upward.

The CHAIRMAN. Then, that being so, must this commission conclude that the operating cost of the street railroads would be upon a higher basis in the future than it has been in the past?

Mr. TAFT. I have not a bit of doubt of it. Not only that, but I think that every business will be.

The CHAIRMAN. It is pretty well recognized that the cost of material and supplies will fall in the course of time, and therefore a large element of the operating cost will be on a lower basis than it has been during the war period.

Mr. TAFT. You think it is going to fall a great deal?

The CHAIRMAN. I hope so. It always has in the past, Judge Taft.

Mr. TAFT. It has, when they have had a panic; but I do not think the cost of living was reduced very much between 1865 and 1873.

The CHAIRMAN. I am not speaking of the cost of living. I was speaking of the cost of material and supplies.

Mr. TAFT. That is what I am speaking of. That enters into the cost of living. I mean, it is affected by the same reasons.

Of course, I am no prophet, and I am not a business man, but as I have followed the general opinion of men who have been in business—say, with reference to the building trades—people have kept out of the building trades because the cost of material is so high; but I think the general opinion now is that the cost of building is not going down very much, and that people are going on to build on the theory that that is a level more or less fixed. I may be wrong about that.

The CHAIRMAN. The function of this commission, if it has any, is to offer some permanent solution of the street-railway situation. That being so, have we a right to consider that the present operating cost, including wages, price of material and supplies, may represent the average normal price for a period of years?

Mr. TAFT. If I sat upon your board I would address myself to that problem on that basis.

The CHAIRMAN. In the zoning system, should the commission consider that the minimum charge should be 5 cents, or a less sum, for short distances?

Mr. TAFT. I think you might perhaps, for short distances, in the zone system, go down to 4 cents.

The CHAIRMAN. If there is to be a zoning system, we must have a charge that will encourage short-haul traffic as well as long-haul traffic to get the revenue for the company?

Mr. TAFT. Yes. I think we ought to have a minimum, but I think it might be below 5 cents.

The CHAIRMAN. This commission has already been asked to offer suggestions for the solution of the local problems; there are a number of utilities that have already sent telegrams and communications to us asking how to settle this particular problem or that particular problem.

Mr. TAFT. I have no doubt that they are reaching out for anything that will prevent their sinking.

The CHAIRMAN. Do you think this commission should, prior to the formulation of its report, attempt to interfere or even venture suggestions as to the best manner of determining some of these local problems?

Mr. TAFT. No; I do not think that. I do think, however, that I would give them a chance to be heard, for two reasons: First, because you will get a great deal of information from particular instances, and second, I do not see why you should not offer yourselves, as you are seeking to give relief, to let this industry, if you can call it such, have a safety valve. There is nothing that helps the psychological condition of a man so much as to have an opportunity to let out what is in him in respect to a subject where he thinks he is not being treated fairly or properly.

The CHAIRMAN. While the street-car problem consists of a great many segregated plants, yet their difficulties all bear upon the general problem?

Mr. TAFT. Yes; they do.

The CHAIRMAN. For that reason we should hear them?

Mr. TAFT. I think you ought to hear them, because there are common facts in respect to all the companies.

The CHAIRMAN. You have been addressing yourself somewhat to the question of service at cost. Service at cost, if I understand the plan correctly, represents a definite understanding that the investor shall receive a return upon his honest investment, and also the public shall receive as good service as it can for what it pays.

Mr. TAFT. What he receives may differ in rate, as to the permanent investment already made, from that that he would receive on subsequent investments; where he becomes a borrower himself, as he must in many of these plants, he will pay the market rate for the money.

The CHAIRMAN. Is not the net result of the service-at-cost plan a public guaranty of return?

Mr. TAFT. It is not a guaranty of the payment of money by the corporation, by the municipal corporation, but is an arrangement by which the fares which the public pay shall meet, within limits, the cost of operation.

The CHAIRMAN. In other words, the public does not guarantee to make up any deficit by appropriation?

Mr. TAFT. No; but it agrees that, within certain limits, the fares shall rise in order to meet the necessity for an income on the investment.

The CHAIRMAN. With that understanding, do you believe that a service-at-cost plan would remove the incentive to economy in the operation of these plants?

Mr. TAFT. I am willing to concede that the factor may not be so strong in such an arrangement as it is where the company has complete control; but I think there is quite enough motive there to make the management far more economical than it would be under municipal management.

The CHAIRMAN. How do you differentiate between the incentive toward economy under the service-at-cost plan and under municipal operation?

Mr. TAFT. The man who is running the company has to see to it that he gets his income within the limits.

The CHAIRMAN. But he is sure of his income?

Mr. TAFT. No; he is not; because the fares are not certain to pay. It is a very different guaranty, if you call it such, to raise the fares than to pay the money on the investment—very different. At least, it seems so to me; and, so far as municipal management is concerned, I am somewhat familiar with that.

The CHAIRMAN. Do you believe, Judge Taft, that a service-at-cost plan, with a certain guaranty of the term, would invite the demand for municipal ownership of these plants?

Mr. TAFT. I do not think so; I think it would allay the demand. I think it would allay the demand in the sense of security that the people would have that that thing was being run under their eyes—that the game was played with the cards face up on the table. That is one of the great advantages in that plan.

The CHAIRMAN. Of course, the plan could not be favored at all unless it meant that the public had a very strict watch over the accounting system?

Mr. TAFT. Oh, yes; and had their accountants there all the time. I understand that there is no practical difficulty about that. At least, in Cleveland, which was the concrete instance before us, there was not the slightest suggestion that the public did not know all that was being done.

The CHAIRMAN. Do you believe that the street-car situation is such that franchises could be adopted throughout the States carrying the same general provisions?

Mr. TAFT. That is a question of success. If one State adopted it and it worked, I think another would; and the solution is so difficult that any success in its solution would lead to a general uniformity. Of course you could not bring it about by national legislation, because there is no jurisdiction to do that.

The CHAIRMAN. Have you given consideration to any particular form of franchise for these utilities?

Mr. TAFT. No, sir.

The CHAIRMAN. Whether the franchise should be for a limited number of years or for a permanent tenure?

Mr. TAFT. No; I would not venture an opinion. I may answer that by saying that that was not my job.

The CHAIRMAN. You do state, however, that from your experience upon the board, you found that State commissions were more willing to recognize new operating conditions and adjust the fares accordingly than the local municipalities?

Mr. TAFT. Oh, I think there is no doubt about that. A public-utility commission comes into a community just as you come in here, and you have a hearing that likens itself to a judicial hearing; and it comes from the center of the State; it represents the State; it is separated from the local feeling. You go before a common council and—well, it isn't so, that is all; it is not the same way.

The CHAIRMAN. Do you believe that State regulation should completely dominate the field, leaving nothing to local tribunals to supply?

Mr. TAFT. I believe in local self-government, of course, as far as possible, and that might well be encouraged by an original hearing, and then an appellate proceeding, so that it comes up before the board with the finding of the council and imposes upon the company the burden of showing that the council was wrong.

The CHAIRMAN. There seem to be two schools of thought on this question. One group of men favor centralizing all of the authority over rates as well as service and capitalization in the State commission; the other favor leaving it with the local municipalities, subject to appeal, both as to service, rates, and other matters, to the State commission. Which plan do you think is the more feasible?

Mr. TAFT. I think the more practical plan would be to give complete control to the State commission, in point of speed of action and possibly efficiency; but there is a strong feeling among the people for local regulation, and I do not think it would interfere with efficiency enough or create so much delay as to offset the advantage of recognizing local interests and local power, thus reconciling municipalities to having such a system. I do not know whether I make myself plain.

The CHAIRMAN. Do you believe that, under any circumstances, the whole jurisdiction, both over service and rates, should be left with municipalities?

Mr. TAFT. Are you speaking of fixing wages?

The CHAIRMAN. No; as to rates and service.

Mr. TAFT. I think the whole subject should be under the control of the State commission and of the local authorities.

The CHAIRMAN. But I asked if you think the whole question should be left to the local municipality, without right of appeal to the State commission?

Mr. TAFT. No, sir; I do not think so.

The CHAIRMAN. Do you believe that we have approached the time where we should get away from the fixed fare, fixed by law or franchise?

Mr. TAFT. Yes; I do. I think a fixed fare that runs for 20 years is not right to either side.

Commissioner SWEET. If this commission should be requested by any local authorities that might agree, perhaps to act as arbitrators in the settlement of local troubles, do you think it would be wise for us to accept that responsibility and do it, or would it lead to possible multiplication of our work to such an extent that it would not be feasible, or would it weaken our authority, the authority of what we may ultimately put forth?

Mr. TAFT. I think it would be a very useful body to tender service in settling questions, where both sides are willing to submit; but I think it will involve you in a permanent business.

The CHAIRMAN. And, of course, our compensation is even less than \$1 a year.

Commissioner SWEET. I have one more question that I would like to ask, suggested by your answer to the chairman with regard to the general advance in prices of commodities and labor and everything else. Is it such, in your judgment, as to justify the statement that the purchasing power of the dollar has been very materially reduced?

Mr. TAFT. I think it has. I think that as soon as peace comes we are likely to have an era of prosperity; and an era of prosperity usually means high prices. It means large demand for everything.

Commissioner SWEET. If the purchasing power of the dollar is reduced, the purchasing power of the nickel is reduced in the same proportion, is it not?

Mr. TAFT. Oh, yes.

Commissioner SWEET. And if the value of the dollar is reduced to 60 cents, the value of the nickel is reduced to 3 cents, is it not?

Mr. TAFT. Yes.

Commissioner SWEET. Is not that a fact that the public should take into account in connection with their paying for this railway service?

Mr. TAFT. Yes.

Commissioner SWEET. If they are paying in nickels that are actually worth, in purchasing power, 3 cents, they ought not to expect to get as much for that nickel as for a nickel that was worth 5 cents in its purchasing power; isn't that so?

Mr. TAFT. Yes.

The CHAIRMAN. Suppose that the improvements in the art of transportation should develop to a condition where the street-car, as now operated, becomes an obsolete institution: should there be any obligation upon the public to protect such an institution?

Mr. TAFT. If it becomes obsolete, it will be rejected, and then they can not get any income. I think that will work itself out. I think the suggestion, however, is a reason why these fixed franchises for long terms are not wise arrangements now.

Commissioner WEHLE. Judge Taft, three of the gentlemen on this commission are representatives of Government departments, and I happen to be one of them, representing the Treasury Department, and this question as to the scope of the commission's activities interests me very much. I think it is proper to say here, because the question has been brought up, that in Washington it is strongly felt, certainly among the higher officials whom I have had contact with in connection with my representation on this commission, that the authority and influence which the commission can exert with reference to the street-railway problem must be purely a persuasive influence, based on the balanced character of the personnel of the commission, and based also on the thought that the Federal Government, in having been instrumental in bringing about this inquiry, is acting really as a mediator, so to speak, in this economic dispute; and that this authority of the Government and the influence which it would have through this commission would be greatly lessened if it undertook in any way to interfere or to suggest as to the solution of any local difficulties.

You have suggested that these gentlemen who are involved in these difficulties should, if they apply to us, be heard with reference even to the difficulty itself. Do you, may I ask, conceive that that suggestion would carry with it, if adopted, a danger that the functions of this commission and the intentions of its framers would be misunderstood?

Mr. TAFT. I doubt it. I believe in the inductive method of philosophy. I believe you will reach generalizations by getting particular cases, safer generalizations, by taking up a series of particular cases, than you will by generalizations such as you have listened to this morning. I do not know how much you value my evidence, but I would not value it very much.

Commissioner WEHLE. We do value it very highly, Judge.

Mr. TAFT. I think the evidence of particular cases, with something concrete before you, even though you have generalizations, will enable you to test those generalizations in a way that would be most useful for you.

Commissioner WEHLE. But your suggestion that we hear these men from troubled localities does not carry with it, does it, the idea that we should make suggestions as to the way in which the dispute should be settled?

Mr. TAFT. No; not unless both sides present the question to you and ask you to do it. Then, if they do, that is a matter of discretion for you to say how far you are willing to go in tendering services that are gratuitous on the part of the Government and, so far as I understand, gratuitous on the part of the members who represent the Government.

The CHAIRMAN. I am sure, Judge Taft, that the commission wishes to thank you for your very valuable contribution to this subject.

Mr. TAFT. I am very glad to come here, gentlemen. I have spoken with great freedom on issues in respect to which I do not claim to have any expert knowledge; but we are all in together in the solution of these problems, or all affected by them, and if anything that has happened to me in the course of the National War Labor Board's experience is helpful to you, I am delighted to give it to you.

The CHAIRMAN. I have a telegram from Mr. G. S. MacFarland, reading as follows:

Call to Washington makes it impossible for me to appear before you to-day. Shall be glad to do so on some other occasion.

This telegram is sent from Boston June 19.

Now, Mr. Pardee, you have a statement to make, I understand, and we shall be glad to hear you.

STATEMENT OF MR. JOHN H. PARDEE.

Mr. PARDEE. I appear as president of the American Electric Railway Association, which of course is vitally interested in the investigation which this commission has undertaken. The association represents a very large majority of the electric-railway mileage of the United States.

It has, for a number of years, been fully alive to the alarming tendency manifested in electric-railway affairs, and through its various committees has been seeking for remedies. It was repre-

sented at Washington during the war by a war board, which, for a part of the time was presided over by Mr. P. H. Gadsden, one of your members, and it constantly endeavored to bring to the attention of the country, and especially to the national administration, the situation in which the industry has been plunged, not only by war conditions, but by conditions which prevailed before the war.

The association believes that in the appointment of your commission a very decided forward step has been taken in the process of informing the country of the very unfortunate state of affairs existing among the traction companies, and of arriving at some solution of the difficulties. As its president, I am authorized to place its facilities at your command.

At a recent meeting of the executive committee of the association a committee of 100 of the leading owners, operators, and bankers interested in the electric-railway securities, and others, of which Gen. Guy E. Tripp is chairman, was appointed for the purpose of preparing a presentation of the situation as it is viewed by the electric-railway interests. We hope to appear before you commission at its convenience with a full and complete presentation and with such suggestions for the correction of conditions as the committee may decide upon.

We approach this subject not only with the interest of the railways in mind, but also with the interest of the public, which we firmly believe is threatened with the loss of an essential and important service, unless measures be taken to check the present tendency.

We believe, with the President of the United States, with the Secretaries of Labor and Commerce, that the situation because of its effect, not only upon the financial structure of the Nation, but upon its commercial and civic life, has national aspects which can not be ignored.

The situation of which we complain is not confined to one locality but extends throughout the United States.

The solution in our opinion depends, in the first instance, upon a complete understanding by the public of the problems as they now exist; and in the education of the public to the importance of these problems, as well as to the method of curing them, your commission can do a very large and a very important work.

Please consider that the association and its resources are at your command in the investigation that you have undertaken. I desire at this time to request your commission, at its convenience, to appoint a date at which our committee may present for your consideration the facts affecting the situation which you are studying, as they appear to the men actively interested in the financing and operation of electric railways. It shall be our endeavor to give you as comprehensive a picture as we can of present conditions and the causes which have led to them, as well as to the remedies to be applied.

The CHAIRMAN. How soon, Mr. Pardee, would it be convenient for your committee to present these facts to the commission?

Mr. PARDEE. Gen. Tripp has called a meeting of the members of this committee who are quite prominent men in all sections of the United States, and he has called a general meeting of the committee for June 26, in New York, at which we hope to have a very large proportion of the members of the committee present. Subcommit-

tees are now working on a definite program to outline to the general committee, and we hope that at that meeting, on June 26, the detailed arrangements will all be made so that we can get to work immediately; so that perhaps a week later we would be prepared to present some particular phase.

Our present idea is that we shall, at these various hearings, present, one at a time, definite phases of the situation: for instance, taxation, in one comprehensive plan; franchises; service-at-cost plan; and various other phases of the general question.

The CHAIRMAN. Would it be convenient for the utilities to present all that you have to say at one general meeting which would consume as many days as may be necessary, or would you prefer to have separate hearings?

Mr. PARDEE. It would depend entirely, sir, upon whether we could prepare it. We desire, if possible, to present this in a very comprehensive and complete way—each section. Some phases will take longer for preparation than others, and I do not know that I can answer that question just now. A little later, however, we can present, I think, at a general meeting consuming one or more days, all of the subjects.

The CHAIRMAN. The commission will be glad to consider any suggestion that you have to make upon that subject. Would it be convenient for the representatives of your association to come to Washington to present that testimony?

Mr. PARDEE. Yes, sir; at the pleasure of the commission.

The CHAIRMAN. There was a Mr. Clark who was to appear this morning to give testimony.

Mr. PARDEE. Mr. Clark is the direct representative of the association, Mr. Chairman, and I am speaking for Mr. Clark, as I conferred with him this morning; and unless it is the earnest desire of the commission to hear Mr. Clark this morning, we would rather have his testimony come into our general plan, rather than take part of it at this time.

The CHAIRMAN. The commission will hear Mr. Clark later, then.

Is there a Mr. Cummin in the room?

Mr. CUMMIN. Yes.

The CHAIRMAN. Will you be at liberty to present your statement this afternoon?

Mr. CUMMIN. Yes, sir.

The CHAIRMAN. Are there any other gentlemen present who wish to present statements before this commission at this time, or at any other period? If so, we will take your names now. [No response.]

Let it be understood that if any here desire to present testimony to this commission, if they are not ready to do so now, they may communicate with us later on. We want to hear all sides of the question, and get all the information that can be gathered.

We now stand adjourned until half past 2, to meet in this room.

(Whereupon, at 12.40 o'clock p. m., a recess was taken until 2.30 p. m.)

AFTER RECESS.

The CHAIRMAN. Is Mr. Cummin present?

Mr. CUMMIN. Yes.

The CHAIRMAN. We will hear you.

STATEMENT OF MR. GAYLORD C. CUMMIN.

The CHAIRMAN. Please state your name, address, and business, Mr. Cummin.

Mr. CUMMIN. I represent now the Institute for Public Service, at 51 Chambers Street, New York, a private institution that has on its board of directors such men as Julius Barnes, of the Wheat Corporation, and Mr. W. Hefflin, manager of the Allied Grain Export Corporation; Dr. L. B. Upson, of Bureau of Governmental Research in Detroit.

The CHAIRMAN. Have you had any experience in the handling of public utilities?

Mr. CUMMIN. I have handled them six years from the public standpoint, and have been about as much with them on the private side. I have been city engineer of Dayton, Ohio, city manager of Jackson, Miss., and Grand Rapids, Mich.

The CHAIRMAN. When and how long were you city manager of Jackson?

Mr. CUMMIN. Two years.

The CHAIRMAN. And at the other place?

Mr. CUMMIN. One year.

The CHAIRMAN. When was it?

Mr. CUMMIN. Two years ago.

The CHAIRMAN. You may proceed.

Mr. CUMMIN. The street-railway situation, as I see it, divides itself into two parts. I might say that, during the past year, I have been with a large utility group and have had opportunity to study, at first hand, the figures and the number of street railroads.

The street railroads seem to separate themselves into two groups for purposes of treatment. One group is the group where it is possible for them to stand on their own feet, by means of increased fares and decreased expenses of various kinds, decreased taxes perhaps, and so on. In other words, the earning capacity is there, to put them on their feet. The other class is the class where the earning capacity is not there; I mean, the rate of fare that is fixed makes absolutely no difference. You could give the company a free hand to charge any thing they wanted to charge, and they still could not raise their gross revenue.

It is rather a simple problem of merchandising. You have a problem of getting the greatest gross revenue, and you can get it in one of two ways—by selling a large number of units for a small price or a small number of units for a large unit price. There is some price at which you can get the largest gross revenue. That is true of street-railway fares just as much as it is of articles of merchandise. But as the size of your town decreases, speaking generally, the price per fare at which you can get the greatest gross revenue drops, and you get in the smaller towns, to the point where 5 cents is probably larger, or might be larger than the point where you could get the greatest gross revenue. Of course, the habit of paying 5 cents might not make that true; but it is certainly true that a 6-cent fare in the smaller towns in many cases will give no increase in gross revenue, and in some cases an actual decrease.

Commissioner SWEET. Are you saying that, now, from actual cases that you know of?

Mr. CUMMIN. I am saying that from actual cases.

I am not going to discuss, very much, the class where the revenue does not exist, where they can not earn the revenue. I am going to try to discuss the ones where it is possible to get the revenue.

The CHAIRMAN. Have you any figures to show in what cases the increase in the fare from 5 to 6 cents would result in an actual loss in gross revenue?

Mr. CUMMIN. No; I have not them with me, Mr. Chairman. I know of two small street railroads that I was watching with a great deal of attention and when the increased fare was put into effect they fell off very materially, not only in passengers carried, but in actual gross revenue for the period of months over which I watched them, about some seven months.

Commissioner GADSDEN. Have you followed up the experience since that time?

Mr. CUMMIN. Since that time I happen to have been out of touch with them.

Commissioner SWEET. I think you had better name the place.

Mr. CUMMIN. Jackson, Miss., was one of those. That is a town of 30,000. There is a case where they do not have to ride.

Commissioner BEALL. That is because the distances are so short?

Mr. CUMMIN. Yes.

Commissioner BEALL. If there are any others that you may have to cite. I think we should know of them.

Mr. CUMMIN. That was the plainest case. That was the case of an increase to a 7-cent fare, which resulted in a decrease in gross earnings, a very material decrease, too, at first.

Commissioner GADSDEN. What was their average ride in Jackson, do you know?

Mr. CUMMIN. No.

Commissioner GADSDEN. Was it over a mile and a half, or less?

Mr. CUMMIN. Less than a mile and a half.

Commissioner GADSDEN. That explains it.

Mr. CUMMIN. It is easy enough to explain why, but it is a condition that does exist.

In the cities where a change of fare promises relief, it seems to me, from what I have seen on both sides, that no form of agreement which has been made at present is satisfactory. Perhaps the nearest approach to it is the service-at-cost plan. That, I think, has in it a fundamental weakness, which was touched upon briefly this morning, but was not brought out, and that is—I do not believe that by making a fixed return, which a utility can not exceed, you can keep that utility up to efficient operation or that you can keep its executives and managers interested in cutting its costs and cutting corners and keeping things as low as possible. That simply is not human nature. You have got to give some incentive to do the thing you want to do, if you want to do it for any length of time.

Commissioner BEALL. Suppose the maximum is not fixed, how then? Suppose there is no maximum there fixed, but that the rates, as in Montreal, rise to whatever height is necessary to produce a given revenue on a given investment. Are you referring to a case of that kind?

Mr. CUMMIN. If you give the utility a fixed return only—that is, if it is allowed, say, 7 per cent on its invested capital, or 6 per cent

on its invested capital—when it once gets up to 6 per cent, it is not going to exert itself to cut its costs, because it does not make any difference, then, what the earnings are, it can only get its 6 per cent, or its 7 per cent as the case may be. You are taking the incentive away from the utility. That it actually has that effect I have seen in other cases not connected with street railroads, but one case I think of, particularly, where an electric-power plant in a small town had an opportunity to buy current from a big central station plant at quite advantageous terms, and they were earning, at that time, the maximum allowed by that State public-service commission, the maximum percentage; and when they signed up the contract with the central-station plant, a rate controversy was inaugurated by some citizens and taken up by the public-service commission, and they lost all the advantage they had gotten by signing the contract, and came back to whatever it was—7½ per cent, I think—that they were allowed.

The man that owned that utility and a group of utilities besides told me shortly afterwards that that had cured him of ever trying to save anybody any money; and you can see how that would happen.

I have heard one other manager of another utility group that has specialized on efficient operation and they are in States where they are governed by commissions, and where they have a fixed rate of return, and I have heard him explain, on several occasions, that he could not see any reason why they should continue exerting themselves to hold the grade of efficiency which they had prided themselves on, because they absolutely got nothing out of it.

Commissioner BEALL. How about a case like Dallas, Tex.? The electric-light company operates under a franchise whereby the lower the rate the larger return they are permitted to earn on the fixed value recognized by the franchise. Does not that cure the thing?

Mr. CUMMIN. I had not heard of that. That is pretty much the same thing I was about to speak of.

Commissioner BEALL. Would not that cure it?

Commissioner GADSDEN. That is also the consideration in the Cincinnati contract.

Mr. CUMMIN. A street-railway contract?

Commissioner GADSDEN. Service at cost.

Mr. CUMMIN. And an increasing return?

Commissioner GADSDEN. An increasing portion that the railway receives of the net profit.

Mr. CUMMIN. I think there is an important point that has to be watched, that the utility, as it decreases its cost so that the rate of fare can be dropped, will get some part of that saving. I think that is most important. I do not believe that otherwise you will get the operation that you have a reason to expect from private operations. I think that incentive must be there.

Commissioner MEEKER. You believe unless you have that money incentive the private operation has no advantages over a public operation?

Mr. CUMMIN. I can see where it would have but little, if any. I can not see any incentive there for them to continue to keep their operation efficient.

Commissioner SWEET. At any rate, it would not reach the highest state of efficiency?

Mr. CUMMIN. No.

Commissioner BEALL. Are you basing that on any actual comparison between municipally owned and privately owned plants?

Mr. CUMMIN. No.

Commissioner BEALL. I think you will find the figures the other way, if you take the operating sheets of municipal plants in this country and compare them with those privately managed; you will find the private companies have the advantage.

Mr. CUMMIN. I am speaking on the average, and not of any particular company. You mean the private companies——

Commissioner BEALL. Are operated more efficiently, at less cost?

Mr. CUMMIN. I believe so.

Commissioner BEALL. Where you can get the figures. In many towns they will not give them to you.

Commissioner MEEKER. You mean, even without the economic incentive, private management is more efficient than public management?

Commissioner BEALL. Yes.

Mr. CUMMIN. I think that is quite possible. There are other difficulties in public ownership which do not generally appear to the public.

Commissioner GADSDEN. Is it not true, also, that even where there is no incentive to the private operation of the extra profit, that the employees and officers of the company still have the incentive of producing economic results in that industry as compared with the results which their friends and associates are obtaining in other plants?

Mr. CUMMIN. Yes.

Commissioner GADSDEN. You do not get rid of that incentive?

Mr. CUMMIN. You still have another incentive, too. You have the incentive that urges them to efforts in order to keep the percentage they do get.

The trouble with municipally owned or publicly owned plants is that you are liable to have a case where they do not look after the financial condition of their plant at all. Their operating statements may be one thing or another, but the actual physical condition of their plant and the condition of their finances is not looked after carefully.

The CHAIRMAN. Do you prefer to complete your statement before submitting yourself to cross-examination?

Mr. CUMMIN. I think this is probably the best way, Mr. Chairman, to bring out any points that I can cover.

The main point that I wanted to impress was the point of not forgetting that you must put the incentive in front of the utility as well as in front of the people, if you want to get efficient operating results. You put an incentive in front of the people by lowering fares, an incentive for them to treat the utility fairly; because if they treat the utility unfairly, they spoil its chances for having a good year's operation, and spoil their chances for getting a lower fare. They can only get a lower fare when the utility is prosperous, and the utility can only get a greater return when the consumer gets a lower fare. I think that is the thing, boiled down. Psychologically

that is correct. On both sides you put an incentive before each party to do the thing that they ought to do.

The great point in the whole controversy, the big job that is before you gentlemen, as I see it, is a job of education. The public are prejudiced. There is no doubt about that. They have known of things that have been done in the past, and they labor under the delusion, or they at least have the feeling that tremendous profits have been made out of the operation of street railroads—I mean directly out of the operation of street railroads—and they see no reason why the companies that in times past have made, as they feel, tremendous profits, should not stand the temporary setbacks also.

Furthermore, by these acts of the past, the utilities have aroused the suspicion and distrust of the public for almost anything they say; and unfortunately the utilities do not seem to have learned to handle the public with any degree of good sense in many of these disputes; they needlessly arouse the distrust and suspicion of the public, and arouse it anew.

Take an instance that occurred in Akron, just recently; that is, in the spring: There was an ordinance in the city council asking for a 6-cent fare, put in by the Northern Ohio Traction Co., and at the same time that that was in the council, asking for increased fare on account of changed conditions due to the war, before the county commissioners was the project of a viaduct which had been designed before the war, where they had entered into a contract with the street-railway company to pay a certain amount based on a percentage of the cost of that viaduct. The war had held it up. After the war, they had got together, and they had to reestimate it at a very much higher cost, on account of the increase in the cost of materials.

They came to the street-railway company to modify their contract on account of the conditions due to the war, the changed conditions due to the war, and the manager said, "We have a contract." And then they wondered why there was a public explosion.

There is an instance of a bone-headed thing that a utility does. They disavowed it in two or three days, but the damage was done. That was not, probably, intentional. The man that that came up to did not see what he was doing. But that sort of thing promptly makes a bad impression the great bulk of the citizens, who say: "You can not rely on anything these fellows say. They want the money, and that is all they are interested in. They do not want to play fair. They want simply what they can get out of it."

I simply cite that as an instance of a thing that is to be remedied if present conditions are to be improved. The utility companies have got to pay a little more attention to the public relations than they ever have before.

There are many instances, as you look over one dispute after another and see where things have been done that were not necessary, where they went out of their way, apparently, to arouse the public. One case that I have in mind occurred in Michigan—Michigan, by the way, is a home-rule State, where the citizens are very particular about any interference with local self-government—and in one of the bills, which was supposed to be fathered by the utilities, that was put in the last legislature, for a public-service commission—

which, for the first time, has a chance of passing in Michigan—the public mind has been educated to the point where they saw the necessity, but this bill came in——

The CHAIRMAN. Did that bill give the public-service commission exclusive control over the rates and service of the utilities?

Mr. CUMMIN. Not only the utilities, but over the municipal utilities, over their rates, and everything connected with them.

Well, now, that promptly brought up the argument that that will give the public-service commission the power to say how much you shall pay for water, for instance, which may be very much above what we are paying now, because part of the cost is being carried out of general taxation; and the way the bill was worded, that was perfectly possible.

It is very advantageous, it is a good thing, a good protection for the public, to have accounting control, to have the State public-service commission have accounting control of municipally owned utilities. They should have. They should have control over maximum rates, they should have control over discriminations in rates; but it certainly was not a wise thing to try to insist upon their having absolute control of ordering what rates should be charged by municipal utilities in a State that is so wedded to local self-government. That was done, and it aroused a great deal of opposition—an amount of opposition that was not at all necessary, and they had quite a hard fight getting any bill through.

That is just another instance of a perfectly good idea being carried too far, and needlessly arousing public distrust and suspicion.

It seems to me that that is the big job that you have got on your hands. You have got to educate the utilities to tell the truth to the public, so that they will believe it. There are a lot of them that are trying to tell the truth, but a good many of them do not seem to know how. They make mistakes, just like the two I have cited.

It is also necessary to teach the utilities to bring out their information in such a way that there is no more mystery left in their business. Mystery is a great thing to engender suspicion, and the more mysterious you make the financial operations of a utility, whatever policy may have to do with it—I am talking about the effect on the mind of the public—you must bring your financial operations out into the open if you ever want to get the public to believe you, and you have got to submit to public-accounting control—not simply an annual audit, but real control of your accounting.

As everybody knows that has ever run any kind of a large job, or any kind of a business, it is the easiest thing in the world to make operating reports do all kinds of funny things. You can juggle back and forth between capital account and operating account, unless it is being carefully watched. I do not believe that is being done, to any great extent, certainly, and it certainly is not being done where we have public-service commission control, but the public thinks it is being done, which is just the same from the standpoint of the utilities; that is, they will not believe the financial statements of the utilities.

You have got to get around that in some way, and the best way to get around it is to take the ammunition out of the public's hands by giving them abundant chance to be sure that their figures are right.

Commissioner GADSDEN. I want to ask you a question. What are you going to do with the other class of utilities?

Mr. CUMMIN. The other class of utilities—you simply have two questions, two things you can do: One of them means—and I am looking at it purely from the standpoint of the public; the public must have service—you have either got a public partnership, a partnership with the public, a subsidy, or something like that, or you have public ownership. There are two things you can do. It has to be subsidized out of taxation some place.

Commissioner GADSDEN. The public has to absorb the loss?

Mr. CUMMIN. The public has to absorb the loss. They are necessary facilities. Unfortunately, they have nothing to look forward to, because the loss that they have suffered now is a loss due to the automobile, very largely, and the use of the automobile is going to increase, and not decrease, and the probable passengers per unit of population served will probably tend to decrease and not increase.

The CHAIRMAN. You mean, then, that the street-car utility is going to become a diminishing factor in transportation, with the development of communal life?

Mr. CUMMIN. Per unit of population, I would think that was correct.

Commissioner GADSDEN. I want to bring out your idea of what is going to be that essential service that could not pay its way.

Mr. CUMMIN. The effect of the automobile now can be shown by comparing the figures on gasless Sundays and the Sundays that were not gasless. On a number of lines I found that the gasless Sundays added from 20 to 40 per cent to the gross revenue, and they seemed to average some place around $33\frac{1}{3}$ per cent. Now, if the street railroads had $33\frac{1}{3}$ per cent more gross revenue than they have now, it would go a long way toward helping the solution of the difficulty, even under present prices.

Commissioner BEALL. You do not refer to carrying passengers at a loss, and where the more they carry the more they lose?

Mr. CUMMIN. I recognize that that would not all be clear. I mean that would take some additional expense. But, unfortunately, one cause of the street railroad's trouble is a falling off in travel per unit of population served.

Commissioner GADSDEN. Is not one of the serious consequences of the street-railway situation the fact that they are called upon to do their maximum service in a limited time, morning and afternoon?

Mr. CUMMIN. Yes; that is very serious.

Commissioner GADSDEN. And that that requires an enormous increase in car investment, which is largely idle during the balance of the 24 hours?

Mr. CUMMIN. Yes.

Commissioner GADSDEN. Is it not also true that the more you increase that peak load the worse the financial condition of the company will get?

Mr. CUMMIN. Yes; unless something is done to fill up those valleys.

Commissioner SWEET. What could be done?

Mr. CUMMIN. I think that is a case that entirely depends upon local conditions. I mean I believe it can be worked out, that loads

can be furnished for street-railroad cars, under some situations, where just now they are not. I mean by perhaps making particularly attractive rates, by finding on study that a certain line or cars travel in a certain direction at a certain hour of the day that are hardly used, that it might be possible to encourage travel that way.

Commissioner GADSDEN. Have you ever made a study of the effect on that situation of industry in general staggering its hours?

Mr. CUMMIN. I never have made a study of it, but it certainly should have an effect.

Mr. GADSDEN. Would not that relieve it greatly?

Mr. CUMMIN. I think it would relieve it very considerably.

Commissioner GADSDEN. If industry generally would stagger its hours and cut that peak down?

Mr. CUMMIN. Yes. If they spread the peak over a greater number of hours, that certainly would lower the cost of giving the service, and probably give better service also.

Commissioner SWEET. What would be the practical method of doing that?

Mr. CUMMIN. That is a matter of the education of the industries to the point, and the workmen also—to the point where they are willing to start and stop at different hours in these industries. It has to be done by agreement. I do not see any way in which it could be done by law. However, it certainly would add very considerably, especially where you have, say, two large plants, two or three large plants out on the end of a line, and they are all let go at the same time now, if they separated their starting and stopping time by, say, half an hour, or even 15 minutes, it would certainly add a great deal to the relief of the situation; half an hour would probably be better. It would not only give very much better service to the people served, but also would cut down the cost of that service.

Commissioner SWEET. Something of that kind was done in Washington with the different departments during the war.

Commissioner BEALL. It was done here during the influenza epidemic, too, and had a good effect.

Commissioner SWEET. That would be entirely out of the hands of the street-railroad corporations?

Mr. CUMMIN. Yes.

Commissioner SWEET. That would be done by the municipality?

Mr. CUMMIN. That is a matter of the education of the public. The public has to learn that they are vitally interested in this problem, which they do not seem to see right now.

Commissioner SWEET. That is right.

Mr. CUMMIN. That is they are bound to lose as long as the controversy keeps on, or as long as the utilities can not live, they are bound to lose; they are bound to lose in service, and perhaps in money, before they get through.

The CHAIRMAN. Had you finished your questions, Mr. Gadsden?

Commissioner GADSDEN. Yes.

Commissioner SWEET. You said something, Mr. Cummin, about the incentive being necessary to the greatest degree of efficiency, and I take it that you are opposing, in a way, municipal ownership on the ground that it does not offer a monetary inducement to the highest degree of efficiency. Is that right?

Mr. CUMMIN. No; that is not the ground on which I objected to municipal ownership. I think the question of municipal ownership, as I see it, is that the people do not want municipal ownership; that is, in general; there are local instances where they do. I believe that it is unproven as to whether a municipality can operate a street-railroad company as efficiently as a private one can operate it. I will not say that it is not possible for a municipality, but I will say that it is unproved that a municipality can. I think it is a last resort, right now.

Commissioner SWEET. Do you think it is possible that a municipality might operate a street railroad as efficiently as a private corporation?

Mr. CUMMIN. I think most anything is possible. I should say it was very improbable.

Commissioner SWEET. Improbable?

Mr. CUMMIN. Yes.

Commissioner SWEET. You said you were the city manager of Grand Rapids, Mich.?

Mr. CUMMIN. Yes.

Commissioner SWEET. As city manager you had charge of the pumping station, waterworks, and of the lighting plant for the city lighting, as well as for other work that was conducted by the board of public works?

Mr. CUMMIN. Yes.

Commissioner SWEET. Paving and construction of sewers and that kind of work?

Mr. CUMMIN. Yes.

Commissioner SWEET. Do you think that your work would have been any better done or any more efficient if you had been working for a private corporation instead of for the public corporation?

Mr. CUMMIN. Yes, I do; because I do not believe the thing would have been in the financial condition it was in if it had been a private corporation, because it would have been in a receiver's hands a long time before.

Commissioner BEALL. They had a rather obsolete plant, did they not?

Mr. CUMMIN. The water plant is modern.

Commissioner BEALL. I mean the electric-light plant.

Mr. CUMMIN. The electric-light plant was a joke.

Commissioner BEALL. It was, when I saw it. I do not know what it is to-day.

Mr. CUMMIN. They had a number of brush-arc motors operated by some single-cylinder Russell engines that were old enough to vote. That, however, has been changed.

Commissioner SWEET. Those Russell engines had been defective almost from the start, had they not, and subjected to a sort of partial repair?

Mr. CUMMIN. Yes; I guess they were not very good in the first place, but they were certainly steam eaters when I had them. That apparatus, by the way, has been replaced.

Commissioner SWEET. Had there not been a lateral crack or breakage in the cylinders, or where the cylinders connected with the steam engine?

Mr. CUMMIN. No; they seemed to have been in good enough operating shape for the type of engines they were.

Commissioner SWEET. But they were not economical engines?

Mr. CUMMIN. No; they were not. Running beside them, they were running a pump and filter plant with the turbogenerator unit that made them compare very unfavorably.

Commissioner SWEET. You think an up-to-date private corporation would have discarded engines of that kind and put in good ones, Mr. Cummin?

Mr. CUMMIN. They certainly would have discarded those, because they could not have operated and stayed solvent.

Commissioner SWEET. When you were conducting the business affairs of the city of Grand Rapids, did the city make any use of hydroelectric power?

Mr. CUMMIN. No.

Commissioned SWEET. There was electric current distributed in Grand Rapids by such method of generation, was there not?

Mr. CUMMIN. Yes, sir.

Commissioner SWEET. But the city did not use it?

Mr. CUMMIN. No, sir.

Commissioner SWEET. Could it have used it to advantage?

Mr. CUMMIN. Probably not economically. We had a very excellent load factor on the electric part of that plant, for the reason that the filter pumps were largely in use during the day, and the same motive machinery ran the street lighting at night; so that the load factor was very excellent, and we could operate—with those Russell engines replaced by turbogenerator equipment, we could operate very efficiently.

Commissioner SWEET. Aside from the fact that cities are very conservative oftentimes, and not disposed to make improvements upon their plants, but merely bearing upon the question of effort or incentive to effort on the part of the management, I repeat my question whether your management in Grand Rapids, as the city manager, was not as efficient, from the standpoint of effort on your part, as it would have been if you had been employed by a private corporation. Is that so?

Mr. CUMMIN. Yes; because under the peculiar municipal situation there, my incentive was my own reputation.

Commissioner SWEET. With regard to the securing of competent managers in a city, is that sometimes to your knowledge, influenced by other motives than those of efficiency?

Mr. CUMMIN. Not only that, but the municipalities, as a rule, pay such ridiculous prices for technical help; for instance, in that very same large water plant you spoke of, the chief engineer was getting \$1,800 a year.

Commissioner SWEET. What was your salary?

Mr. CUMMIN. My salary was \$10,000. He was getting \$1,800. There is not a private plant of one-quarter that size that would not have been paying their man more than that. They happened to have a good man, but that was luck, and not good management. When they have to compete with the whole field, with the whole industrial field, for the technical men that they need, and then try to get them for one-quarter to one-third of what is paid outside—well,

they just don't get them, that is all. That is one reason public efficiency falls off. They do not get the best man.

Commissioner SWEET. I am trying to get your reasons for thinking that street railways could not be advantageously operated by municipalities.

Mr. CUMMIN. Not at present.

Commissioner SWEET. I personally do not believe that municipal operation is advisable; at least, I would have to have pretty strong evidence to satisfy me that it is advisable. My leaning would be the other way. And yet my own observation in connection with city government has been that, as a rule, much better men are obtained, better talent, and a greater amount of energy and efficiency than ought to be expected for the salaries that are paid. Isn't that true?

Mr. CUMMIN. I think that is true; yes, sir.

Commissioner SWEET. Then, if cities would wake up to the idea that they have got to pay proper compensation for their work, is it not possible that municipally managed railways might be successful?

Mr. CUMMIN. Absolutely. I think it is entirely possible. But I think the public has got to be very decidedly rebuilt. The public is a poor employer.

Commissioner SWEET. It is a stingy employer?

Mr. CUMMIN. Yes; and always has been a poor employer. They have got to get around to being a good employer if they want to be efficient. They have got to quit political interference with the management of their public utilities if they want to make them a success; and they have got to get them on a sound financial basis. Those are the things they do not do.

Commissioner SWEET. The man who preceded you in the management of the public works at Grand Rapids was Samuel A. Freshney. Did you know him?

Mr. CUMMIN. Yes; very well.

Commissioner SWEET. The public paid him \$4,000 a year?

Mr. CUMMIN. Yes.

Commissioner SWEET. And he left the public employment and took a position with the Commonwealth Co. at a much larger salary, did he not?

Mr. CUMMIN. Yes.

Commissioner SWEET. Do you know what he got?

Mr. CUMMIN. No; but I know that he got a much larger salary.

Commissioner SWEET. Six, or seven, or eight thousand dollars?

Mr. CUMMIN. At least, to start with.

Commissioner SWEET. The public lost a good man because it was not willing to pay him a good salary?

Mr. CUMMIN. Yes.

Commissioner SWEET. Is that general throughout the country?

Mr. CUMMIN. Yes; it is.

Commissioner SWEET. That is something, of course, that could be, by proper education of the public, corrected, is it not?

Mr. CUMMIN. It is an educational question very largely. The line of demarcation must be drawn in the public mind between politics in the legislative side and politics in the administrative side of their governments. That is, they have got to keep politics out of the actual doing of the things they want done.

Commissioner SWEET. One objection that is raised to municipal ownership is the political objection?

Mr. CUMMIN. Yes.

Commissioner SWEET. That it would create a large body of governmental-employed individuals who would be a disturbing factor, in a certain sense, from the political standpoint?

Mr. CUMMIN. Yes.

Commissioner SWEET. Have you seen evidences of that kind of political influence in connection with the city government—some of them?

Mr. CUMMIN. Not to any serious extent; no. I have known of cases of a police force being active in politics, for instance. That did get to be serious, though. I understand in some Australian publicly owned utility, up to the time of the war, one Province, I believe, disfranchized all their public employees.

Commissioner SWEET. If I understood you correctly, the solution of this problem, from your standpoint, is to make it an incentive to the public by giving lower fares, lower rates, an incentive to use the public utilities, and to desire their success, and to have no limit to what the management or the corporation itself may make, so as to also present an object to them for the best and most efficient management?

Mr. CUMMIN. That is the general idea.

Commissioner SWEET. In other words, you want to eat your cake and have it, too? How can you have lower rates, so as to please the public, and increase the earnings so as to please the management? Is not one antagonistic to the other?

Mr. CUMMIN. No. It is done by a division.

Commissioner SWEET. What is that?

Mr. CUMMIN. It is done by a division. Take the case of a corporation where a rate is fixed which is computed to yield it 6 per cent, we will say, on its investment, just for purposes of argument. It earns 7 per cent in the next year. Its actual net earnings are 7 per cent. That extra per cent will be placed aside, because it was only allowed to earn 6 per cent. The next year it will be allowed to earn $6\frac{1}{2}$ per cent, and the consumer will get a discount, or an extra ticket, depending on what kind of a utility it is, the aggregate of which is computed to be equal to this other half per cent. In other words, the next year the return allowed will be $6\frac{1}{2}$ per cent. We will say that that year they earn 7 per cent. All right. Still divide it 50-50, and you get up to a return to the utility of 8 per cent, or 7 per cent, and give the utility one-quarter beyond that, and the consumer three-quarters—let it diminish as it goes up, the possible return to the utility, the additional return to the utility.

Commissioner MEEKER. Why diminish?

Mr. CUMMIN. For the purpose of the effect on the public mind. As a matter of actual fact, I do not think it makes a great deal of difference, but the public has the idea that it is possible at some time to earn very tremendous earnings—15 or 16 or 17 per cent. If you have this diminishing scale as you go up, you can remove that fear from their mind, and remove that argument from the opponents of any such plan.

Commissioner WEHLE. That plan has been in use in English cities for a generation or so, has it not, in connection with gas rates?

Mr. CUMMIN. Not that I know of.

Commissioner WEHLE. And is there not a plan of that kind in effect in Boston, during the last 10 years—a sliding scale of rates?

Mr. CUMMIN. That means an actual change in the rate. I do not want to get off on the gas question, because that is another question.

Commissioner WEHLE. It is the principle—I am not trying to get into a discussion of the gas question—but simply inquiring whether the principle you have just been advocating is the principle which has been in use in English cities with reference to gas and in Boston with reference to gas; is that true?

Mr. CUMMIN. My principle goes beyond that. I did not explain that point, perhaps, because it does not appear so prominently in a street railway. It is important that the consumer, in whatever utility it is, be impressed with the fact that he is getting a part of that profit. The way you have to handle it with street railways is to fix the cash fare that is high, the incidental fare, but sell so many tickets for a quarter and so many tickets for a dollar, in order to take care of fractional cents, that is computed to be the correct fare. Well, now, the extra tickets that go on for a quarter and go on for a dollar are the thing that impresses that fellow with the fact that he is getting a dividend out of that company all the time. The same way, the important thing in distributing that to a gas consumer is not simply giving them a different rate the next year. He sees that rate, and that is all he does see. But put a discount on his bill every time, an extra discount—that is what he gets for keeping the company prosperous, and that is staring him in the face all the time, that discount, just as the extra ticket will stare him in the face in the other case. I want to impress it on the consumer in every way that he is vitally interested in the well-being of the company. The only way you can do it is to put it in such shape that he falls over it every time he turns around. I think, from the psychological standpoint, that is of vital importance.

Commissioner WEHLE. There are two things that you regard as vitally important, if I understand you: One is that the user of the street railroad, the rider, shall be impressed with the idea that the company's advantage is his advantage?

Mr. CUMMIN. Yes.

Commissioner WEHLE. And the more prosperous the company is the lower the rate is going to be to him the succeeding year?

Mr. CUMMIN. Yes.

Commissioner WEHLE. But also that the knowledge on the part of the community in general, including those who ride on the street railroads, that the investor or the corporation itself is not making an undue amount?

Mr. CUMMIN. Yes.

Commissioner WEHLE. And that, if I understand you correctly, means not merely having their books audited from time to time, but having them open all the time to the public; in other words, having them practically kept by public accountants?

Mr. CUMMIN. Yes.

Commissioner WEHLE. Who will represent the public, rather than the corporation?

Mr. CUMMIN. Yes; perhaps keep it in parallel with them; but at least I think it is necessary for public control of the entire making of those accounts.

Commissioner WEHLE. The idea being that the public mind must be impressed with the fact that there is no underhanded work about it?

Mr. CUMMIN. Absolutely. It must be made clear to the public that there is absolutely no chance for anything to be put over. That thing has been overlooked again and again. Utilities will get into a rate dispute and the other side will bring up some perfectly foolish arguments. They may be foolish arguments, but people believe them, and the utility that takes the stand when those things come up and tries to fight them by simply saying they are foolish, and refusing to pay any attention to them, and calling the man who makes them names of various kinds—they are not getting any place; they are not impressing the people and the other fellow is impressing the people. That ammunition can be taken out of the agitator's hands entirely, if they start out to do it. For instance, if the leader of an agitation against an increased fare disagrees with a valuation that has been made upon which this increased fare is based, and says that he does not believe that is the value, even though it has been made by a competent man, the very obvious thing to do, from a sensible standpoint, is to say to him: "Whom would you believe? Is there some man who specializes in this work that you would believe?" And if he says, "Yes; so and so." "All right, we will get him in here to check that valuation." This man may not have known at all what he was talking about, but you will kill his argument if you get in the man he says he will trust to check that valuation. That is just an illustration of the principle that has to be followed. The utility gets no place at all by simply saying that these arguments are foolish.

Commissioner WEHLE. How do you think the valuation of street-railway properties ought to be made? Should it be entirely upon the basis of physical properties?

Mr. CUMMIN. It should be on the basis of the investment, if that can be discovered.

Commissioner WEHLE. In many cases is not that absolutely impossible?

Mr. CUMMIN. Yes; a valuation is always a case of getting an approximation of the truth.

Commissioner WEHLE. I think you said you had been employed part of your life for private corporations?

Mr. CUMMIN. Yes.

Commissioner WEHLE. If you are willing to make a statement on that point, I wish you would—as to whether it is not a very common thing, and from your own experience and observation you do not know it to be so, for these street-railway corporations to water their stock, as we say; in other words, to issue an amount of stock entirely out of proportion to the actual cash investment.

Mr. CUMMIN. There is no question but for a number of years the securities were issued on what they could earn, and not on what they had in them.

Commissioner WEHLE. Don't you know cases where this has been done: That bonds have been issued and sold for practically the entire

investment, and the stock has been issued on nothing that was actually paid for?

Mr. CUMMIN. I do not know; I do not believe, at the present time—

Commissioner WEHLE. I do not mean at the present time. I mean in years past.

Mr. CUMMIN. Yes; I do not doubt that at all.

Commissioner GADSDEN. How many years ago since that practice has stopped?

Mr. CUMMIN. I do not know that I can answer that question directly, because I think it is very largely a question—I do not believe it was stopped until people could not do it. It is possible that even up to late years people could have done it. I think there always were some people who were willing to do it.

Commissioner GADSDEN. Economically it has been impossible for a good many years, has it not?

Mr. CUMMIN. Theoretically.

Commissioner WEHLE. Practically?

Mr. CUMMIN. For street railroads.

Commissioner SWEET. Street railroads have not been paying dividends?

Mr. CUMMIN. No.

Commissioner SWEET. And people would not invest?

Mr. CUMMIN. No.

Commissioner SWEET. You spoke of two kinds of street railroads; one kind that was hopelessly gone, practically—

Mr. CUMMIN. Where the earning capacity is not there.

Commissioner SWEET. Where the construction has been in localities that have not the resources upon which a railroad could live?

Mr. CUMMIN. Yes.

Commissioner SWEET. If I understand you aright, you do not pretend to have any remedy for that kind of a street railroad. It has simply got to go by the board?

Mr. CUMMIN. No; I say that means public partnership, public subsidy, or public ownership.

Commissioner SWEET. You mean that the public has to be taxed to keep it alive in some way?

Mr. CUMMIN. The community need must be met by taxing the community, that is all. If the road is a necessity to the community, the only way the community can preserve that is by paying the deficit. I do not care how they do it. They can do it as a partnership, they can do it as a subsidy, or as full owner, but it has to be paid.

Commissioner SWEET. It can not, in your judgment, be made a paying proposition from the standpoint of a business operation?

Mr. CUMMIN. No; I do not believe so, in the small town.

Commissioner SWEET. It must be treated, then, as merely a public convenience?

Mr. CUMMIN. Yes.

Commissioner SWEET. And paid for by the public because of that fact?

Mr. CUMMIN. Yes.

Commissioner SWEET. In some way, either by taxation, or by some sort of contribution?

Mr. CUMMIN. Yes.

Commissioner SWEET. You spoke of another class of street railroads that you think are good business propositions and, with fair treatment, or with the right kind of treatment, would not need any outside help?

Mr. CUMMIN. They have the earning capacity.

Commissioner SWEET. They have the earning capacity?

Mr. CUMMIN. Yes. In other words, an increase in fares, and probably some lopping off of unjust burdens in the way of street paving and undue proportions of bridges and things of that kind.

Commissioner SWEET. I want to ask you some questions about that before I get through, but right on this point, first: Is the statement you have made to us with regard to such an arrangement as would make it an object for the general public to use the railroads and feel an interest in their success and for the management also to be interested and try to keep expenses down—do you regard that as a sufficient panacea for the ills of what you would rank as the better class of railroads?

Mr. CUMMIN. I think that is a promising solution. I do not say, in any particular case, that it would be a complete panacea. I think there will be a necessity, probably, under present prices, which are likely to continue for a long time, to use every method which can possibly be used.

Commissioner SWEET. All right. Let us go to the other methods. What do you say about paving between the tracks and for a foot or so outside?

Mr. CUMMIN. The cost of paving between the tracks and for a foot or two outside is an unjust burden on the street-railroad companies at present. Our street paving was started in this country when we had horse-cars, and the horses did wear out the pavement, and that is the reason it started in that way; and it has been put in every franchise, or almost every franchise, ever since, because the street railroads could not get out of it and they just had to submit to it. There is an undue burden. The maintenance of it, and any extra cost due to the track, should be paid by the street railroad—that is perfectly proper—but the pavement itself should not.

Commissioner WEHLE. You mean that part of the cost of maintenance that is not due to the wear and tear of other vehicles?

Mr. CUMMIN. In fact, the most of the cost of maintenance of the pavement between the car-tracks is due to the rails and operation over them. They have to be cut into fairly frequently—a joint goes down, and it will break up the pavement for a little distance around; soft spots develop in the roadbed, and it will result in raises and depressions, etc., and the big bulk of your maintenance is maintenance that is fairly well traceable to the street railroad. The maintenance is a proper charge against the street railroad.

Commissioner SWEET. But the original construction is not?

Mr. CUMMIN. The original pavement, except that part of it which may be an extra due to the cost of paving around the rails, and things of that kind, if it should exist, should not be paid by the railroads. The extra cost, of course, that is necessitated by reason of the pavement being laid around the rails, should be paid by the road.

Commissioner SWEET. Even at that, bearing in mind the fact that the public is so deeply interested in having the advantage of the

street railroad there, is there any unfairness in having the public pay for all the paving?

Mr. CUMMIN. If they want to; but I think if they pay the maintenance as well—I do not believe it is going to be a practical operating proposition, because a large part of that maintenance may have to be done by the trackmen of the street railroad, the men who are taking care of the track.

Commissioner SWEET. Can you give us any definite idea as to what would be the saving to the electric railways of the country if the construction of the pavement between the tracks and just outside were to be borne by the public instead of by the street-railway company? How much would the saving be?

Mr. CUMMIN. Of course, that would vary very widely. I know of one case where a street railroad in Dayton had an expense for paving for one year of \$200,000.

The CHAIRMAN. What per cent of its operating cost was that?

Mr. CUMMIN. I would not have any idea.

Commissioner SWEET. That would not be a real test unless you knew that?

Commissioner BEALL. There are four street railways in Dayton, are there not?

Mr. CUMMIN. Four or five.

Commissioner BEALL. None of the four are very large properties; but the point I think you want to make is that it was a very large cost?

Mr. CUMMIN. It was.

Commissioner BEALL. I doubt if the net earnings of the street-railway company were as big as \$200,000?

Mr. CUMMIN. They were not. The net earnings were below that.

Commissioner SWEET. That might have prevented them from being on an earning basis?

Mr. CUMMIN. Yes; although that line, I think, never has been on an earning basis. When they were put in, they dodged the paved streets. They were the newest line in town, and ever since then they have been paving those streets. It is a pretty long line, and I guess they have spent everything they could get together in paving.

Commissioner SWEET. Could you give us any idea of the maintenance cost per year for maintaining the paving between tracks and just outside?

Mr. CUMMIN. That varies a great deal with your subsoil, with your class of construction, and with your traffic that is carried. It would be pretty hard to say what that would amount to.

Commissioner SWEET. If you are not in a position to give us figures on that now, could you prepare them and give them to us later, or get them?

Mr. CUMMIN. Well, the only way to do that would be to take up a special case and get the figures. It is a local issue. Your maintenance in one town may not bear any relation to the maintenance in the next town, for exactly the same kind of paving.

Commissioner SWEET. Or in the same town next year?

Mr. CUMMIN. That is correct.

Commissioner SWEET. But still it would be possible, would it not, to reach a sort of a general average or estimate that would be fairly accurate?

Mr. CUMMIN. Probably it would, scattered around in different places.

Commissioner SWEET. I think it might help if we knew rather definitely what the cost of construction and of maintenance both was, with regard to this paving, because that question has been raised, and we want to look into it.

Mr. CUMMIN. There are two parts in the paving to the street railroad. One of them is absolutely charged against the street railroad, and that is the cost of preparing the roadbed and putting in the new track and ties and concreting in the ties. They concrete them in, getting up to the point where the surface is to go on. That is perfectly all right. That is chargeable actually to the company. Then the rest of it is generally charged for at just the same price as for the rest of the paving job, per square yard. In most cases the contractor makes no difference for the paving between the rails and a foot outside as compared with the rest of the paving.

Commissioner SWEET. Is the paving requirement of a privately owned street-railroad company universal in this country, or does that vary?

Mr. CUMMIN. As far as I know, I have not been in any city yet where it was not required, and in my experience I have never seen any franchise where it was not required.

Commissioner SWEET. So that as far as you know it is a uniform requirement?

Mr. CUMMIN. Yes; and that is an unjust burden. That is something that can be taken off. I think the same thing occurs on some bridge rentals. In some cases they have not been rentals, but they have paid a lump sum, I think, in some cases, and that has been too big.

I think it proper that a street railroad should compensate for extra cost in making that bridge strong enough to carry the additional loads put on it, by the street-railroad company. It perhaps should pay a small additional rent, but I think in some instances the amount required to be paid has been unreasonable.

Commissioner SWEET. On this paving proposition I asked Judge Taft this morning, and I would like to ask you, whether there is not an injustice as between the general public and the riding public under the present system; whether, in the final analysis, the payment for the expense of paving and maintenance of it, for that matter—although we did not dwell upon that—is not borne, assuming that the company is solvent, by those who use the street-cars, those who ride on the street-cars; and those who use automobiles, and who are very much interested in having good paving between the tracks do not pay a penny for it; is that true?

Mr. CUMMIN. Yes.

Commissioner SWEET. Under the present system?

Mr. CUMMIN. Of course, in a great many States they do not pay anything anyway, because the property owner stands most of the cost of paving, and not the city at large.

Commissioner SWEET. That is assessed against the property?

Mr. CUMMIN. That is assessed against the property.

Commissioner SWEET. But inasmuch as wherever the street is improved it is assessed against each property, on one street, and then on another, it balances up to a certain extent?

Mr. CUMMIN. When they all get paid.

Commissioner SWEET. But in Grand Rapids, and in many other cities, at street intersections the city does pay?

Mr. CUMMIN. Yes; at intersections.

Commissioner SWEET. And that payment is made out of public funds, raised by taxation?

Mr. CUMMIN. Yes.

Commissioner SWEET. So that the city pays a good deal of it; quite a considerable amount?

Mr. CUMMIN. About 25 per cent.

Commissioner SWEET. But as between the two elements in the community, the people who ride on street-cars and those who ride in automobiles, there is a distinction?

Mr. CUMMIN. Yes.

Commissioner SWEET. And those who ride on street-cars, under the present system, we are trying to make, or it has been the custom actually to try to make them pay. Ultimately their nickels go to pay for that paving?

Mr. CUMMIN. That is simply an illustration of the public being directly unable to see that when they make a public-utility corporation pay something they ought not to pay, that it is not the public-utility corporation that pays it, but the people who use that public-utility.

Commissioner SWEET. That is exactly it.

Mr. CUMMIN. One reason why they do not see that is because we have had so many fixed fares and so many fixed rates for different kinds of services—rates fixed in franchises—where they did not change, no matter what happened.

Commissioner SWEET. Then, if I am correct, a change from the present system with regard to paving between the tracks and to the outside would probably do two things, or, I might say, would certainly do two things: one, tend at least, to make it possible for the street-railroad companies to live, which, under present conditions, they find it difficult to do, and the other, distribute more justly over the entire community the expense of constructing and maintaining this pavement?

Mr. CUMMIN. It would certainly be a proper charge on the rest of the community; yes.

Commissioner SWEET. What about hydroelectric current? Are there not a great many water powers in this country that are available—that might be developed?

Mr. CUMMIN. Yes.

Commissioner SWEET. And furnish cheap power for the operation of street-railroad companies that are not being used?

Mr. CUMMIN. I doubt that.

Commissioner SWEET. You doubt it?

Mr. CUMMIN. Yes. I am a constitutional pessimist on water powers. I have worked with too many rivers, Mr. Sweet. I doubt whether 50 per cent of the water-power development—I am speaking of the larger water-power development of the United States—would ever have been built if they had known just what they were getting. They do not get the theoretical power out of it.

Commissioner BEALL. Are you talking of ordinary river powers, or where they have a high head? There are numerous cases of rivers where the head is very low and where they are subject to overflow,—like the Mississippi, to take the most glaring example, of course, where it is almost impossible to control it, and that is a different proposition.

Mr. CUMMIN. Yes. The point is, though, that a lot of water-power plants have been built and they have never gotten the cost they expected to get. In other words, their fixed charges were considerably higher than they thought they were going to be per kilowatt.

Commissioner BEALL. That is limited to a very small class. You will find the average water power in this country is pretty profitable on its cost—the average, where they have a high head.

Mr. CUMMIN. Where they have a high head?

Commissioner BEALL. Where they have a high head; yes. I mean anything from 75 feet up to 1,800 or 2,200 feet.

Mr. CUMMIN. Yes; I agree with that.

Commissioner SWEET. What distance is it feasible to convey the electric current without too great loss to justify its conveyance?

Mr. CUMMIN. I think that is rather a broad question. I believe it is being transmitted over 300 miles in California.

Commissioner BEALL. Yes; it is.

Mr. CUMMIN. That probably is not economical under low fuel costs. That is, if you are operating against a steam plant with reasonable fuel costs you might be able to beat that.

Commissioner BEALL. Even in normal times coal in most sections of California is \$9 or \$10 a ton, so that you can understand in California you can have water that cost, even on prewar prices, \$250 a horsepower and make good money out of it. In New York if you go over \$100 you want to be very careful and look out as to your proposition. I am going back to prewar prices. I could not tell you on to-day's prices.

Commissioner SWEET. It requires copper wire, does it not, or at least that is the best?

Mr. CUMMIN. That is the best; yes.

Commissioner SWEET. And alternating current?

Mr. CUMMIN. Yes.

Commissioner SWEET. Is it not a fact that there are in this country a great many practical water powers that have not been used at all?

Mr. CUMMIN. Oh, yes.

Commissioner SWEET. That are within, say, 100 miles of cities, where the current would be very valuable for street-railroad purposes or for interurban purposes, if you please?

Mr. CUMMIN. Well, I would be inclined to doubt that.

Commissioner BEALL. Not in this section of the country.

Commissioner SWEET. Not in the East, you mean?

Commissioner BEALL. Yes. Unfortunately the greatest and most valuable water powers are in the West.

Mr. CUMMIN. In the far West and in the Southern Appalachians there are some good ones.

Commissioner BEALL. But you do not get the population there.

Mr. CUMMIN. No; but the powers are there. They are not available to markets, however.

Commissioner SWEET. Some steam railroads are using electric power in the mountains, like the Chicago, Milwaukee & St. Paul?

Mr. CUMMIN. Yes; but you take the States where you can not get high heads, and especially the great Middle Western territory, where, if you are going to regulate the flow of the rivers, so that your motor power during the year will be something that is reasonable at all to operate under, your cost per kilowatt will run out of all reason, and that is the thing that makes those powers so very expensive.

For instance, it is perfectly feasible, to return to parts of the country that you know, to get power out of Grand River at Grand Rapids and above Grand Rapids; it would be a matter of building a huge storage reservoir, perfectly feasible from a physical standpoint, but from an economical standpoint it is absolutely not feasible, as the development of that storage would be so tremendously expensive that steam power would not cost you nearly as much.

In the same way there is another power there that has been or supposed to be before the public up the Thorne Apple River, and an analysis of that power shows that by any reasonable amount of money that might be economically spent on the development it would not give you sufficient storage to give you a flow throughout the year that would justify you in building that at all.

That is the situation that shows up about 90 per cent of the water powers that you hear about; I mean the water powers that are not being utilized, and are supposed to exist. You will find, on analysis, that they are not an economical proposition. When they get to be an economical proposition, they probably will be developed shortly, unless there are some outside reasons that absolutely prevent it.

Commissioner SWEET. Then you would not look upon that as a material relief for the street railways?

Mr. CUMMIN. No. I think an analysis of cost will show that suppose you did cut the cost of electricity 15 or 20 per cent to them, that would not help them out a great deal.

Commissioner SWEET. Every little would help.

Mr. CUMMIN. I know; but it would not help out as much as one might think at first.

Commissioner SWEET. From your acquaintance with the operation of electric railways, is the generation of current by the present methods the most economical? Are they using, in other words, up-to-date methods as a rule?

Mr. CUMMIN. Of course, there are many plants that are using the most up-to-date methods, and of course, there are others that are not. You will find all classes of machinery scattered over the country in these different street-railway plants. Where they have not put in modern machinery in many instances it has been simply a case of where it was impossible to finance it. You may know that you can save money by spending some money, but if you can not get that money to spend, you will just have to go on and keep wasting it.

Commissioner SWEET. It might have quite a bearing upon the findings of this commission if we were satisfied that the reason why street-railway companies are in such bad financial condition is that they are using machinery that ought to be discarded and scrapped instead of being used.

Mr. CUMMIN. I do not believe that you will find that. That will be a factor more or less in different cases, but I do not believe that is the serious thing.

Commissioner BEALL. That is one of the smallest parts of their operating expenses, is it not?

Commissioner SWEET. The coal?

Mr. CUMMIN. No; electricity.

Commissioner SWEET. The coal required to produce electricity?

Commissioner BEALL. There is a big difference, though, between a city like Washington, that is level, and Kansas City, which is all hill—a big difference.

Commissioner SWEET. In what way?

Mr. CUMMIN. In the amount of power.

Commissioner BEALL. In the amount of power required. You have to have more motors in the car, and heavier.

Commissioner SWEET. Heavier motors?

Commissioner BEALL. Yes.

Mr. CUMMIN. That would be a hard thing to generalize on, and I do not believe, as I say, that a reduction of 15 or 20 or 25 per cent in the cost of electricity would make any serious inroad on the present deficits of the companies.

Commissioner SWEET. How about the other economies, or possible economies; can you suggest any?

Mr. CUMMIN. A possible economy, of course, not practicable for some large cities, is the one-man car. That is a practical economy under a great many conditions.

Commissioner SWEET. The motorman practically acting as conductor and motorman, you mean?

Mr. CUMMIN. The motorman operates the car and the entrance is at the front; the people have to come in and go out at the front of the car.

Commissioner SWEET. Where is that system in operation?

Mr. CUMMIN. That system is in operation in a number of the smaller cities.

Commissioner SWEET. Is it satisfactory?

Mr. CUMMIN. They have not gotten the reduction in cost that they hoped; or rather, costs have raised the value of things so that it has not made a great effect upon the operating expense.

Commissioner BEALL. Is not the real reason for this that it is used almost entirely on lines that never were profitable anyway—it is an effort to get a further reduction of expense on something that always will be unprofitable?

Mr. CUMMIN. Yes.

Commissioner SWEET. Do you think that would be a feasible plan in a city of 40,000 or 50,000?

Mr. CUMMIN. In a city of 40,000 or 50,000, yes.

Commissioner BEALL. But only on their outlying lines; not where the congestion is?

Commissioner SWEET. In the heart of the city?

Mr. CUMMIN. In a town of 40,000 or 50,000 people I think it is quite possible that it might be used. It would depend somewhat on the situation; but I should say in most towns of that size it could be.

Commissioner SWEET. Are they a smaller car, or a standard size?

Mr. CUMMIN. That is another economy that has been practiced—the use of a lighter car. I do not know enough about the comparative maintenance costs of the heavy car and the light car to know whether that is a true economy or not, especially on heavy traffic lines.

Commissioner BEALL. Is not the answer to that that you have really got to have the expense in your power house anyway, and the heavy car costs more, but the light car wears out faster?

Mr. CUMMIN. Yes; there is some point in that.

Commissioner BEALL. There is a balance?

Mr. CUMMIN. There is a question as to where you have the most economical point; but that is suggested as a possible source of economy.

Commissioner SWEET. Have you had any experience with the skip-stop, so termed, that has been tried in many cities during the war?

Mr. CUMMIN. Yes; in the smaller cities the skip-stop saves nothing.

Commissioner SWEET. How is it in the larger cities?

Mr. CUMMIN. In the larger cities I am not familiar with the actual figures, but I should say that there was a possibility that it did save something. That is, it might enable them to take out a car or so on a line at certain times by increasing the speed at which they can get over the route. In a town of 30,000 or 40,000 or 50,000 people it does not do it. You have to deal in car units, and you do not save enough time to get rid of one car. If you are running 15 cars at a time you can not cut it to 14.

Commissioner GADSDEN. As a matter of fact, is not the greatest demand for power in the starting of the car?

Mr. CUMMIN. Yes.

Commissioner GADSDEN. Does not the car use two or three times the amount of power in starting that it does after it gets its headway?

Mr. CUMMIN. Yes.

Commissioner GADSDEN. Therefore, every stop you cut out saves that appreciable amount of power, does it not?

Mr. CUMMIN. It saves some power, yes.

Commissioner GADSDEN. An appreciable amount?

Mr. CUMMIN. Yes.

Commissioner GADSDEN. And that reflects itself in the total generation at the power station and is appreciable, if it is a big enough system?

Mr. CUMMIN. Yes; but it does not affect it as much as you would imagine, because when you are generating 1,000 kilowatt hours and have to generate 1,200, provided it is well within your capacity—that extra 200—it does not cost you one-fifth more, by a whole lot.

Commissioner GADSDEN. But it does reduce your cost per kilowatt? It does save a few kilowatts, and if you save kilowatts, you save so many dollars, do you not?

Mr. CUMMIN. It does not work out quite that way. For instance, if you save 1,000 kilowatts out of a total of 10,000 kilowatts, you would not cut your cost 10 per cent.

Commissioner GADSDEN. I did not say that, but you would save a substantial amount of money?

Mr. CUMMIN. They might save a little.

Commissioner SWEET. You said that the automobile was having a very material effect in diminishing the travel upon street railways, and consequently diminishing their earning capacity. Can you see any remedy for that from the street-railway standpoint?

Mr. CUMMIN. No; I do not know that I can. I think the use of the automobile is going to increase rather than decrease, and the only thing I can see is for the street railroads to try to work out some scheme to make riding on street railroads more attractive than riding in Fords. If they can do that, they can perhaps make inroads on these deficits. But there is the situation: A man owns a car, and he goes back and forth to work in it, and he used to ride in a street-car; and he will probably seat two or three of his friends, or at least one friend, probably an average of three or four a week; he will take them out with him as he passes them on the street. Those all are potential street-railroad fares, that would be street-railroad fares if it were not for that automobile; and you multiply that by thousands and thousands of cases, and you make a very decided inroad on the earnings of the street railway.

Commissioner SWEET. Of the two kinds of street railroads you spoke of, those that are almost hopeless, or practically so, and those that are not, which would be the more affected by the automobile competition?

Mr. CUMMIN. I do not see that it would make any particular difference.

Commissioner SWEET. Don't you think that these street railroads that I think you, or perhaps Judge Taft, said never ought to have been built, that there was no logical reason for building, out into the suburbs, would be more affected, in proportion, than those in the center of the city?

Mr. CUMMIN. Oh, yes. Take a line that is built into a high-class residential district, and it might be pretty nearly put out of business by the automobile traffic. You take lines in the city of New York, and they might be very little affected. I mean, the percentage is probably very much less than it would be in a smaller city, but that is taking the extremes, of course. I believe if you take cities the size of Detroit and Cleveland and cities of that general class, you will find that the automobile has cut very, very heavily into the revenues of the street-railway companies. It is easy enough to simply go out in the street and count them up—what would be street-car fares if it were not for the automobiles.

Commissioner SWEET. In the cases you have in mind, is the jitney playing any part, in your estimate?

Mr. CUMMIN. Under certain circumstances and in certain cases the jitney may be a very serious competitor; but taking the question and generalizing upon it, the serious thing is the automobile as a whole—the privately owned automobile and the jitney and everything all together; that is the thing that the street railroads must face, the competition of the automobile. The jitney competition you can control. The private-automobile competition you can not control.

Commissioner SWEET. That is likely to grow worse, rather than better?

Mr. CUMMIN. I would judge so, at least by the plans that the automobile manufacturers have.

Commissioner MEEKER. There was one point that I wanted to bring out—although I think perhaps it has already been covered by questions which have been asked—and that was in reference to automobile transportation, either by jitney or automobile bus. As a matter of fact, is transportation by automobile bus to-day as cheap as transportation by street railways, in reasonably crowded districts?

Mr. CUMMIN. The figures that I have seen are pretty conflicting on that point. I do not know.

Commissioner MEEKER. But that is a serious thing, and must be considered by this commission—the competition of the jitney transportation or the automobile bus.

Mr. CUMMIN. As I say, in certain local situations it may be very serious. I would judge, for instance, in Minneapolis that the big automobile buses there were a serious factor in the earnings of the Twin Cities Railroads.

Commissioner MEEKER. It is quite possible that in the future improvements in the gas engines may be made so that the street railway properties in some districts will, as suggested by the chairman this morning, become obsolete, or at least obsolescent, so that the street railway companies in those localities will have to prepare to write off a large part of or perhaps the entire cost of their investment. You agree with that, do you?

Mr. CUMMIN. Yes; that is possible.

Commissioner BEALL. You probably know this—that in Dallas and Los Angeles, Calif., until the jitneys were regulated by law, principally by compelling the furnishing of indemnity bonds against injuring people and property—I have not the exact figures in mind—but it affected the gross earnings of those properties something like 30 or 40 per cent or more—not less. That is how serious it was.

Mr. CUMMIN. Yes.

Commissioner BEALL. It was also very serious in Seattle; but that has been almost entirely eliminated in those places by a new law.

Mr. CUMMIN. As to the Minneapolis situation, they are regulated there, but they have these great big buses that seem to be operating pretty frequently, and I should imagine they cut into the street railway revenues considerably.

Commissioner BEALL. They did between Dallas and Fort Worth; they almost put the interurban line out of business—but that is interurban. I was speaking of the cities' lines.

Mr. CUMMIN. The same thing is happening to interurban lines in the Middle West where good roads are put in. Where good roads are put in, the jitney buses promptly take a large part of the business away from them. But I think the whole question goes right back to the automobile generally; if you attempt to generalize, you have to treat it as the automobile, and not simply as the jitney bus; because the jitney bus is local.

Commissioner WEHLE. Has any study of costs been made with reference to these Minneapolis buses?

Mr. CUMMIN. Not that I have ever seen. The few costs I have ever seen on buses have been rather conflicting.

Commissioner WEHLE. Has the engineering proposition ever been made that street railroads might be propelled by gasoline instead of electricity?

Mr. CUMMIN. Henry Ford has proposed it, and he says he is going to build a car.

Commissioner GADSDEN. Nobody else has?

Mr. CUMMIN. Oh, it has been proposed.

Commissioner WEHLE. Has it been proposed in any serious way, so far, so that there might be data on it, or reliable estimates on that subject?

Mr. CUMMIN. There is no data that I know of. The only gasoline operation of a car was some few years ago, when they operated some gasoline cars on some branches of steam railroads.

Commissioner BEALL. Yes.

Mr. CUMMIN. Several of them out in Oregon, I think.

Commissioner BEALL. Some in California, too.

Mr. CUMMIN. I have not heard much about them lately, so I imagine they were not a howling success.

Commissioner WEHLE. There would naturally be a great deal of opposition to the development of the idea from those who are interested in the investments in electric properties, would there not?

Mr. CUMMIN. Oh, I don't know.

Commissioner WEHLE. It would necessarily mean discarding these electric properties, would it not, if that idea should ever come to the fore?

Mr. CUMMIN. Yes, of course; but I think that when any live business realizes a situation of that kind, there is only one thing for them to do, and that is to accept it and write off the losses; they do not have to write off all the losses in one year.

Commissioner WEHLE. I do not think people like to write off losses.

Mr. CUMMIN. No; they do not. They do not like to write off losses, but if they do not do it, somebody else will get the business, and they know that, and then they will not only have their losses to write off, but they will have lost their chance to render the service with the new thing.

Commissioner BEALL. That is what did occur in the change from horse to cable, and from cable to electric power, is it not?

Mr. CUMMIN. Yes.

Commissioner WEHLE. Exactly. You have stated that there is a type of electric-railway property which is inherently impossible to successful private operation; that is, a small town property?

Mr. CUMMIN. Yes.

Commissioner WEHLE. Have you in your possession, or could you file in this record, any detailed statement specifying the properties which come within that description, within that type? You have only given us one instance, so far—Jackson, Miss.—have you not?

Mr. CUMMIN. Yes.

Commissioner WEHLE. Which, in your opinion, illustrates the type?

Mr. CUMMIN. Yes.

Commissioner WEHLE. Do you think that your information is sufficient to enable you to say that there is a large number of properties which conform to that type?

Mr. CUMMIN. Yes.

Commissioner WEHLE. And which can never be operated successfully under private operation, from a business standpoint?

Mr. CUMMIN. They probably never can. In fact, I imagine you will find a great many that never have been operated at a profit.

Commissioner WEHLE. We know that that is true, of course, but that may easily be due to errors in management, or various kinds of special circumstances. But you are talking now in the abstract, as I understand it?

Mr. CUMMIN. Yes.

Commissioner WEHLE. And you are assuming that the foundations for operation have been laid in a businesslike way to begin with, and that the demonstration is that these properties are a blind alley, speaking in terms of business. Can you give instances of that, besides Jackson, Miss., if you would be willing to do so?

Mr. CUMMIN. Another one I happen to know about is Fond du Lac, Wis., and Oshkosh, Wis. Those are two that I happen to know of. Oshkosh is a case where they have got a large part of their mileage that is pretty dead, and always will be, possibly; at least for a great many years it is going to be pretty dead; they get very little traffic from it, and yet they have got to operate.

Commissioner WEHLE. In Jackson, Miss., was there an overbuilding of the property there into territory that was really dead?

Mr. CUMMIN. Not to any serious extent.

Commissioner WEHLE. So that you think that the conditions at Jackson, Miss., are such that they really prove your proposition?

Mr. CUMMIN. Oh, I think it is utterly hopeless for any street railroad in Jackson, Miss., to ever earn its salt. It has got to be helped along by a stronger sister, which it always has been, down there; and, in fact, the city has more or less recognized that, and the street-railroad franchise is concurrent with an electric-light-and-power franchise, so that evidently the situation was recognized.

I can not cite you a lot of cases, but I think that the public-service commissioner right here could probably give you a dozen of them within 40 miles of the city of New York. I do not think you will have to go any further away than that, where, if you allowed them to charge anything—I make the distinction there of where you allow them to charge any rate of fare they want to charge—they can not stand on their financial feet. Take the lid off, and let them charge anything they want—the business is not there. In other words, they can not increase their gross revenue appreciably, no matter what they make their fare.

Commissioner SWEET. But as the rate goes up, the patronage goes down?

Mr. CUMMIN. Yes; and it goes down in the smaller cities so fast that you simply can not gain anything by putting on the higher rate. Let them charge 10, 15, or 20 cents, and it would not help matters any. There is a case where regulation of fares is not necessary by a public-service commission. It does not make any difference what they charge. There are plenty of instances of just that, at the present time.

Commissioner MEEKER. You spoke of service at cost. Of course, it would be necessary to have a physical valuation of the plant to get at what the service cost. You said, as I understood you at least, that the ideal method of getting at the value of the plant would be to get the amount invested?

Mr. CUMMIN. Yes; if you can get it.

Commissioner MEEKER. Suppose we can get it. Suppose it can be gotten. Suppose the investment has been an unwise one, as it would seem the investment in Jackson, Miss., was?

Mr. CUMMIN. That would have to be taken into consideration. In that particular case, as I say, the situation was recognized, apparently, by the franchise. It was recognized that the electric-light plant would have to support the street railroad, more or less.

Commissioner MEEKER. Then what you mean really is to get at the prudent investment, is it not?

Mr. CUMMIN. Yes. There was a public service that was needed, the town wanted it, and made that arrangement in order to get it. There will be a number of street railroads, I think, as your investigation goes on, where you will find there probably is not a financial basis to justify their being there, even in normal times, but that they are a real community need, and some arrangement has been entered into whereby that community need can be filled. That has to be taken into consideration as well as the lack of wisdom as a straight business investment. That is, sometimes the community need has been filled at an actual business loss.

Commissioner MEEKER. And there must be some arrangement, either by writing off the capital or by subsidy of public ownership or partnership, in order to maintain this service?

Mr. CUMMIN. Yes. You can not get an investor to put any money into that in order to give the service which the public needs unless you let it stand on its feet.

Commissioner MEEKER. You said getting at the valuation was but an approximation in any case. Do you think it is possible to get a physical valuation that is accurate enough to base their fares upon?

Mr. CUMMIN. You face this situation in a valuation—securing a fair value or physical value or anything else of that kind—that you can not get the exact truth. If you try to get the exact truth, you will spend so much time in splitting hairs over things that are matters of opinion and have to be based on hypotheses that your results are not going to be worth the amount of time you put in. What you must expect to get is the closest possible approximation to the truth. You probably can have two thoroughly competent engineers for the same property and they will not agree even with the best intention in the world, both of them absolutely trying to get at the truth. They will not agree and they may not agree within quite a large margin, and yet both of them have an approximation of the truth. You can not expect to get any better than an approximation, and the thing you must aim at is to get the best approximation that you can get. You have to start from some point in making your fares. Well, now, there is only one thing to do and that is to work out some way of agreeing upon that basis. It may not be the truth, but if it is the closest approximation of the truth you can get it is satisfactory as a starting point. After that, with accounting control, you can see that your books are kept so that you can keep right on upon that basis.

Commissioner MEEKER. You think the deviation from the mean in these engineers' estimates is within a sufficiently narrow limit so that these various estimates may be taken as the basis of adjusting fares?

Mr. CUMMIN. I would say so in the case of engineers who are recognized as being disinterested. Some of them are not.

Commissioner MEEKER. You spoke of taxation and also paving charges as coming from the public. Taxation from the public, paving charges from the riding public. That would not necessarily be true, would it? In fact, were not those charges—paving charges and taxation—resorted to by the public because the street railways were making a good deal of money, and they were charged with the paving charges and with franchise charges in order to take some of their profits away from them?

Mr. CUMMIN. That was the original idea. I think you misunderstood my statement somewhat, because when I spoke of taxation I meant that deficits would have to be handled by the public, some through taxation, either as a partner or as operating the business themselves. If the deficit existed, it would have to be paid for by the public, and paid for by taxation. I entirely agree that the utility should be taxed on just the same basis as anything else. I think that is entirely proper. I do not believe there should be any change made. If you stop taxing the utility, you are paying it a subsidy; I do not care what you call it or how you do it.

Commissioner MEEKER. It is very desirable to resort to indirect taxation if it can be avoided; that is, allowing the street-railway corporation to collect in fares an amount that does give them an income above a reasonable income on the investment which is to be taken from them through the taxing power of the State. It is better to reduce the fares and reduce income in that way?

Mr. CUMMIN. Yes.

Commissioner MEEKER. So as to avoid the waste of pouring water from one vessel into another repeatedly?

Mr. CUMMIN. Yes.

Commissioner MEEKER. Just one thing more. To what extent is it possible in your experience as an engineer to improve the implements of street-railway transportation, and thereby assist to put the companies back on their feet? Is there much of a margin to be gained in that direction?

Mr. CUMMIN. Of course, there is quite a margin in some cases. You will find some roads that are in very bad physical condition. They are in very bad physical condition in many cases because they have not been able to get the money to keep themselves in good physical condition, and now their operating costs and maintenance costs are out of all reason on account of their physical condition. There is a case where, if the money could be put into it, a considerable amount could be saved.

As far as new devices are concerned, I should say that these gentlemen of the Electric Railway Association can tell you a whole lot more about them than I can, because they keep in very close touch with them.

I think that anything that promised a saving the street-railway companies would be only too glad to adopt.

Commissioner MEEKER. I think the commission would be interested in getting your views of how money can be obtained by these railways of which you spoke when you said if they could put more money in their investment, in their equipment, they could cut down their operating costs and, incidentally, increase their income; and they can not borrow the money. What is to be done?

Mr. CUMMIN. They are in the position of the two mining partners, one of whom stayed out West to develop the prospect and the other came East to sell the stock; and the one who came East to sell the stock could not sell the stock because the other fellow could not discover any gold, and the fellow out West could not discover any gold because the fellow in the East could not sell any stock. That is just the situation the street railroads are in. They can not get any earnings until they can invest some more money in their plants to get them in shape, and they can not get any more money to invest in their claims until they get some more earnings.

Commissioner MEEKER. You have just repeated my question to you to me. Now, what is the answer?

Mr. CUMMIN. That is the situation. The answer, in a situation of that kind, is that I do not see anything can be done, except I think if an agreement can be secured that will reasonably assure the company of being able to get back upon a business basis that possibly financial arrangements could be made.

Commissioner MEEKER. Do you suggest the loaning of public funds?

Mr. CUMMIN. I think that is bad public policy.

Commissioner MEEKER. Why?

Mr. CUMMIN. Because if it is done once it is likely to be pretty hard to tell where it will stop.

Commissioner SWEET. It will become a habit?

Mr. CUMMIN. Yes.

Commissioner MEEKER. Guaranteeing income?

Mr. CUMMIN. I think there might be something, perhaps, done along that line of where the city would borrow upon its credit and in turn lend to the utility, taking proper security to cover its advancement. I think something of that kind might be worked out, but I do not believe that is advisable if something else can be done. I am a little jealous of diverting the public funds to bolstering up private credit on anything. It is bad enough to have to do it directly as a subsidy. I doubt its policy as a matter of loan.

Commissioner MEEKER. Just one question more: Who is to determine these properties that would pay if you would put more capital into them?

Mr. CUMMIN. Just like everything else, it is a pure matter of judgment. You can not draw up any formula and make it fit all cases. You have to work out the special case and come just as nearly to the truth as you can come and then decide as may seem best in that case. I can not see that you can draw up any formula that you can fit to any cases that may arise.

Commissioner WEHLE. I am coming back to that subject of the small town that you spoke about. Is there any way in which you can suggest to us that we obtain data especially on that kind of a town? Because there are a great many towns of that general sort in the country, and they would all be interested.

Mr. CUMMIN. I should imagine that the Electric Railway Association could furnish you a very large number of instances.

Commissioner WEHLE. Is there any person outside of the Electric Railway Association, or is there any source—any statistical source—that you know of outside of that that could give us light on that subject?

Mr. CUMMIN. Perhaps some of the State utility commissions could give you information on that. For instance, the statistician of the Wisconsin Commission could probably give you considerable information on just that point, and that probably would be true of a number of the other State commissions.

Commissioner WEHLE. You made one rather clear-cut generalization that I should like to have a little examination of. We were talking about the cost of construction of streets in between the tracks and on both sides, and your view seemed to be that no part of that cost should be borne by the street-railway company—that is, the construction. What would you say to this sort of a situation: Supposing that a street-railway company, in order to reach an outlying suburb which promised considerable traffic, extends its line to that suburb in order to bring in that community within its operations and into its revenues, and thereby necessitates the building up of the line through the opening up of that roadway for more people, necessitates the paving of that street. In view of the fact that the railway company is expecting to add to the population of the street and of that suburb, and to gain a considerable profit through that operation, can we say, as a categorical matter, that it should not stand any part out of its profits, or before it makes its profits, we might say, of the cost of constructing that street in between the tracks?

Mr. CUMMIN. No; because it is not the street railroad that has made that paving necessary. The street railroad may have built out to that suburb and increased the population of it very materially, by furnishing transportation facilities. The thing that makes the street paving necessary is the fact that the people who live out there, and the people who want to ride out there and do not want to ride on the street car, want to use the street.

Commissioner WEHLE. Are there not a great many conveniences that people have that make a street necessary?

Mr. CUMMIN. Yes; but a street is necessary as a community need. It is not caused by the building of a railroad. It is caused by the people being out there and needing the street.

Commissioner WEHLE. Don't you think it rather a difficult thing to separate that—I am not ready to argue with you or disagree with you—but whenever you undertake to make an out-and-out declaration of where the right is and where the wrong is, I would like to see whether we have made it safely.

Mr. CUMMIN. Your basis for assessing abutting property for the pavement of a street—that is, the theoretical basis for it, anyway—is that the pavement of that street added to the value of that property, and that therefore it is proper to tax for the pavement of that street; in other words, a special benefit is derived.

Commissioner WEHLE. But the paving of the street, in so far as it leads to any thicker populating of that part of the town, through making it more acceptable for general traffic, adds to the traffic of the street-railway company, does it not?

Mr. CUMMIN. No; it may not. It may do just the opposite.

Commissioner WEHLE. But it may, may it not?

Mr. CUMMIN. You take the case I cited here a little while ago, where an interurban line is paralleled by a hard-surfaced road, and the business is taken away from the interurban line by jitneys, automobiles, etc. The paving of that street may be an actual detriment.

In any case, I can not see why it is brought on except by very indirect methods by the street-railroad company building that extension. I still think my generalization is good.

The CHAIRMAN. Isn't it a fact that there is comparatively heavier maintenance on the paving between and immediately on each side of the tracks?

Mr. CUMMIN. As I say, the maintenance is caused very often by the breaking down of joints, it is caused by having to cut in to repair bonds and by conditions in the subgrade underneath the ties, and by the failure of the ties and the rails, etc., and the maintenance of pavement in street-car tracks is always very much heavier than it is any place else. If you go out and go over a street that has been paved a number of years, and go along the street-railroad tracks, you can see the condition that the street-railroad tracks put it in. Numerous efforts have been made to get away from that high cost of maintenance, some fairly successful and some not so successful, in the way of using practically monolithic pieces of various kinds.

The CHAIRMAN. Are there any further questions of this witness? [No response.]

Are there any other witnesses who wish to be heard by the commission this afternoon? [No response.]

The commission stands adjourned, then, until further notice.

(Whereupon, at 4.30 o'clock p. m., an adjournment was taken sine die.)

WASHINGTON, D. C., *July 15, 1919.*

The commission met, pursuant to notice, at 10 o'clock a. m.

Present: Charles E. Elmquist (chairman), Edwin F. Sweet (vice chairman), Royal Meeker, C. W. Beall, L. B. Wehle, and Philip H. Gadsden, commissioners.

Appearances: Mr. Bently W. Warren, Boston, Mass., and John H. Pardee, New York, N. Y., representing the American Electric Railway Association.

PROCEEDINGS.

The CHAIRMAN. Mr. Pardee, the commission is ready to hear the Electric Railway Association.

STATEMENT OF MR. JOHN H. PARDEE.

Mr. PARDEE. Mr. Chairman and gentlemen, I appear before you as president of the American Electric Railway Association, an organization which represents a very large part of the electric-railway mileage of this country and a very large part of the capital invested in the electric railways in urban and rural communities.

This organization has been in existence since 1882 and has been the spokesman of the industry through all the phases of its development from the original horse-car lines to the cable road and through the period of evolution from the first commercially successful electric railway of the city of Richmond, Va., in 1888, to the present-day trolley which is part of the social and economic life and industrial life of almost every city of any size in this country and in many of the rural communities. I feel, therefore, as president of this association, and speaking with the authority of its members, I am pre-

senting to you the views and wishes of an industry representing an invested capital of over \$6,000,000,000 and which operates more than 44,000 miles of electric-railway track in the cities and rural districts of the United States.

We are before your commission because a crisis has been reached in the conduct of this very important and essential enterprise. It is not too much to say that we are no longer able, under existing conditions and with the revenue which we are receiving, to continue in the performance of the functions which the electric railways are designed to perform. It is no longer a question of what return shall be allowed to the owners, it is a question as to what service, if any, shall be rendered to the public. It is a situation which very intimately concerns these three classes:

First, and most important, the public, which is threatened—and I am not now speaking in parables, but am dealing with actual facts—in many cases with the entire loss, and in nearly all cases with a very great deterioration of the service which it requires.

Second, the more than 300,000 employees, who, in the end, in spite of theories or pronouncements of arbitration boards, must depend for their wages upon the financial ability of the companies to pay.

Third, the owners of the properties whose investment—made, it is true, with the object of legitimate compensation, but made, nevertheless, in the interest of the entire people—is now jeopardized.

The peculiar conditions surrounding the operation of all public utilities, and especially of transportation utilities, is the direct cause of our being before you. Owing to the complete system of control and regulation exerted over us by the public authorities, which both prescribe our service and control our rates, we are unable to readjust ourselves to changing conditions as every other industry not so hampered is readjusting itself. On the one hand, we can neither decrease to any considerable extent the quantity or quality of our product, or, on the other hand, increase the price of this product, without the consent and cooperation of the public, acting through the constituted authorities, which means in the end that to put into effect measures for our salvation we must obtain the consent, or at least the acquiescence, of the public itself.

We realize fully that your commission is without power to take peremptory action or to directly put into effect any recommendations which you may make. You, however, bear the commission of the President of the United States; you were appointed at the joint suggestion of the Secretaries of Commerce and of Labor, made because these gentlemen realized the important bearing upon the national interests intrusted to their charge of the precarious situation of the electric railways and saw the necessity for its correction in the national interest. Your conclusions and recommendations will have the confidence of the people and will carry with them the weight that must always be attached to the wishes and conclusions of the national administration. Your appointment gave to the electric-railway industry an opportunity of presenting to the public, whose representatives you are, a true picture of the state into which it has fallen through no fault of its own. We have no desire to "make a technical case" in the legal sense; what we want to give you, and through you to the people of the country, are the facts, and

all of the facts, to the end that with your help and with their cooperation a solution may be found.

We are before you then, because we believe that the solution of our problem is as much a matter of concern to the people as it is to the shareholders and operators of the properties, and because we believe that the solution can only be properly arrived at through the cooperation of a public educated to the needs of the railways as these needs affect the needs of the communities.

In my opinion, and I am confident that in this opinion I will be supported by the industry, there are two major phases of the situation which we now face. The first concerns the absolutely uneconomic and unsatisfactory basis upon which the relations between the electric railways and the public have rested since the enterprise was inaugurated; and by this I mean that there has never been a proper conception either on the part of the owners of these properties nor on the part of the public as to the factors which should govern the service to be rendered or the fares to be charged by electric railways. This is a situation which has existed during the entire life of the industry and is responsible for much of the misunderstanding between the companies and the public. It existed before the war, is entirely unconnected with the changes wrought by the war, but it is one of the fundamental reasons why the war has helped to bring disaster upon us.

The second phase was the direct result of the war. It first developed immediately after the declaration of war in 1914 and was vastly accentuated by the entrance of the United States into the war in 1917. The national war program, to which we, as railway men, all subscribed, and to the fulfillment of which we lent our very best endeavors, involved the electric railways and other public utilities to an extent immeasurably greater than that in which any other national industry was involved. The Government took control of our labor, it raised the wages of our employees in many cases as much as 100 per cent; it took command of our fuel supply, and fixed the prices which we were compelled to pay for coal; it fixed the price of every commodity that entered in the maintenance and operation of electric railways; in a vast number of cases, it prescribed the service which we were to perform, and called upon us companies for construction involving many millions of dollars. In fact, there was not a phase of electric-railway operation in which the Government did not interfere, with the result that the cost of operating our roads was very greatly and materially increased. Thus it did to add to our burdens; to assist us in bearing these burdens and to meet these obligations, it did nothing.

We are not here to claim that this action of the Government was not entirely necessary and entirely proper, or that it exclusively affected our industry. But we do say that its effect upon the railways of the country was the more pronounced and the more disastrous because alone of all the industries affected, the public utilities were unable to apply the obvious remedy—an increase, on their own volition, in the price of their product to meet the increase in its cost thus forced upon them.

These two phases of the situation we propose to lay before you in detail, showing by the testimony of those best acquainted with the various groups of facts, what is the present condition of the in-

dustry, what were the causes of this condition, and what are the avenues of escape.

We believe that our problem, in the solution of which we claim your assistance, is a problem of readjusting an essential industry to conditions that have materially changed—first, because of the natural development of the business and the changing civic and social life of the communities; and second, because the Great War has wrought a great change in national concepts of industrial and social relations.

As I see it, the elements that go to make up these changed conditions as they directly affect electric railways are:

First, the higher price level upon which not only the United States but the entire world has entered, which seems bound to obtain for an indefinite period of years.

Second, the conditions surrounding the employment of labor, which is a larger part of the cost of operation of electric railways than it is of any other industry with which I am acquainted. In this connection, I believe that it must be evident to any unbiased and unprejudiced student of present-day conditions that labor is demanding and will receive a greater share in the wealth that it produces than ever before in the history of the world. Everywhere industry is adjusting itself to meet these demands, and no lasting solution of the railway problem can be reached unless this industry is put in a financial position where it can render the same meed of justice to its employees as is expected from industry generally.

Third, the introduction of a new competitive factor in the automobile, not only the so-called "jitney," but more especially the privately owned automobile and the motor truck.

Fourth, the enlarged functions of street-railway systems, which with the growth of the communities they serve have ceased to be private enterprises, with the sole aim of adding to the comfort and convenience of the public, and have become absolutely essential to the community growth, development, health, and welfare, with the result that it is no longer possible to consider either service or rates from the standpoint of business principle alone.

The association which I represent, and the Committee of One Hundred, to which it has intrusted the presentation of its case before your commission, does not intend to impress upon you in detail its own views as to the remedies which should be applied to the cure of the situation. We do believe, however, that there are two fundamental ideas which will inevitably force themselves upon you for your consideration. The first of these is that the cooperation of the public is sine qua non to the stabilizing of electric-railway conditions; that there must be impressed upon the public a new conception of the relations between the communities and the public utilities which serve them; that the antagonism which has hereto prevailed is disastrous to both interests, and that only when the public and the companies work together to secure efficiency and economy in operation can the desired service be furnished at a reasonable price.

The second is that in order to provide, through the employment of private capital, proper transportation facilities for cities and for rural districts, the basis of compensation must be so determined as to provide an assured, reasonable return and a rate of fare so flexible as to readily and automatically adjust itself to the cost of providing the service.

I thank you, Mr. Chairman. The association Committee of One Hundred has asked Mr. Bently Warren, of Boston, to represent it in the presentation of this case.

The CHAIRMAN. You may proceed in the method which you desire.

STATEMENT OF MR. BENTLY W. WARREN.

Mr. WARREN. Mr. Chairman and gentlemen of the commission, Mr. Pardee has stated our purpose and hope in coming before the commission. We are here, as he said, because of the very serious situation confronting this industry. We expect, and shall endeavor to lay before the commission, a very full statistical statement of the present condition of these railways and of the causes and possible suggested remedies for that situation.

That the situation is extraordinarily serious is shown, I think, by the figures which happen to be available for the last calendar year in one State—my own State of Massachusetts. In Massachusetts, as we shall show you from statements from our public-service commission, with an investment of almost a quarter of a billion dollars in the street-railway industry—exactly \$241,000,000 odd, with gross receipts of \$45,000,000 last year, in 1918—the combined street railways of that Commonwealth failed by \$2,858,000—almost \$3,000,000—to earn their operating expenses and fixed charges, earning not a cent toward a dividend upon the capitalization of \$106,000,000 and paid-in premium of \$6,000,000, or a total of \$113,000,000 of paid-in capital and paid-in premium, except such dividends as were paid upon leased lines under lease contract.

I mention that simply as an illustration. We shall not be able to give figures for 1918 for the entire country, much as we should like to do, because we believe that those Massachusetts figures are typical. We shall be able to give you estimates of various operating results for the United States for the year 1918 through reports from special companies made to the American Electric Railway Association.

What we shall try to do, as Mr. Pardee has told you, is to lay before you the general situation regarding this industry over the whole country, both its physical condition, its extent, and its financial condition. We shall follow that by endeavoring to show you the causes which have produced that situation and its effect upon various phases of the industry, such as the cost of labor, the cost of capital, and other costs, the social need that is the essential character of the street railways to the communities, some defects as we conceive them in the application of public regulation to these utilities, and finally, the theories advanced by many people and many different theories as to what the proper remedies are.

I should like first, before going into the statistical part of our presentation, to call upon Gen. Tripp, who is chairman of the Committee of One Hundred. That committee is serving voluntarily, as I understand it, at the invitation and request of the American Electric Railway Association, and is representative of all the industries directly affected by the street-railway industry, and is not composed merely of street-railway men, but of representatives of insurance companies, manufacturers, and various industries which have business relations with the street-railway industry. I should like now

to call upon Gen. Tripp, chairman of that committee, to explain further the organization of the committee and its reason for being.

STATEMENT OF GEN. TRIPP.

Gen. TRIPP. Gentlemen of the commission, I appear before you as chairman of a committee of one hundred which was appointed by the American Electric Railway Association to present to you on behalf of the electric-railway industry the present conditions of it.

I would first like to call your attention to the character of the committee, because it indicates how varied are the interests that are affected by the prosperity or lack of prosperity of the industry.

You will notice by examination of the list of members that has been handed you that it comprises not only those men who are engaged in the administration of railways, but also includes officers of insurance companies, bankers, trust companies, and manufacturers. So we appear here not as simply representing the investor in street-railway securities, who has already suffered large loss and is in great danger of suffering further loss, but as manufacturers, bankers, insurance men, to present this case to you in its broadest aspects, and as representing the financial and industrial elements of the Nation, which are affected by an industry which has an investment capital of something like \$7,000,000,000 and an annual income of \$730,000,000, and which is in extreme danger of complete collapse and dissolution. This would jeopardize the interests not only of the individual investor in its securities, but its effect would be a real cause for alarm on the part of insurance companies, bankers, trust companies, and other fiduciary institutions which, with sound judgment at the time, have invested the savings intrusted to their care in the securities of the electric railways. And it would also be a matter of serious moment to manufacturers who find in the electric railways a customer which consumes annually about \$200,000,000 of their product.

The appointment of your commission is evidence that the present condition in which the street railways find themselves is also a matter of concern to the United States Government. And I take it that that concern is not wholly nor perhaps principally on account of any particular regard that the Government has for the street railways themselves, but rather that the effect of the present condition of the industry upon the financial and industrial fabric of the country was the factor uppermost in causing the appointment of your commission. And so we find the Treasury Department, the Department of Labor, and the Department of Commerce represented on your commission. The Treasury Department is interested because an industry which requires \$200,000,000 of new capital each year and a larger sum than that for its refunding operations can not indefinitely remain in its present condition without an effect upon the financial system of the country. The Department of Labor is concerned because the question of wages, conditions of work and employment, are concerned not only as it affects the railways themselves but as it affects manufacturers who furnish materials and supplies to the railways. The Department of Commerce is concerned because to an extent seldom realized until a strike or some other circumstances operate to cause a cessation of service, the industrial life of the community is very closely

bound up with the local transportation facilities. The close connection between the industrial life of the communities with local transportation service was amply shown by the experience of the United States Government during the war. Very early in the experience of those departments which had to do with the production of munitions and supplies it was found impossible to secure efficiency and to maintain it without seeing to it that the local transportation facilities were efficient and ample to assist in the housing of workmen. And so several of the departments instituted independent bureaus for the purpose of dealing solely with that problem.

The appointment of your commission is the first opportunity that the street railways have had to present their problem as a national problem. The present methods of regulation and control have failed. It requires no argument to prove that. The fact that an industry scattered all over the United States and operating under different local conditions—the mere fact that such an industry is as a whole on the verge of bankruptcy at a time when unregulated industry is at the height of prosperity—speaks for itself.

The present system of regulation and control is entirely too inelastic to respond to the stress of changing conditions, particularly such as now exist, and they do not permit of the prompt adjustment of the price of the product or the cost of the product. And any method of control or regulation which does not permit of the application of this simple rule will always fail. I have no doubt that this is a fundamental truth which is recognized by everybody, but in the case of electric railways a peculiar psychological factor has been introduced which has hindered the adjustment of electric-railway problems.

The old system of contracts between a municipality and a railway, under which the railway agreed for a certain fixed fare to perform certain service, raised a popular belief that the performance of a railway service through the medium of private enterprise amounted to giving away public privileges to private individuals out of which enormous profits have been reaped. It has been impossible hitherto to eradicate that idea from the public mind. I do not believe that the relations between municipalities and electric railways can be satisfactorily adjusted upon the basis of a simple contract such as might exist between two individuals or corporations. I entirely subscribe to the theory of State regulation and control; and that theory having been admitted, I believe it is impossible for the parties to stand in simple contractual relations with each other, and the idea should, if possible, be entirely removed from the public mind and a new conception of the functions of electric railways substituted. That concept I believe to be that the electric railway is an agent of the public to furnish it service, and for that service it is entitled to a fair and just return upon capital honestly invested in the service and upon conditions which will respond to changing conditions of operation and of finance.

I think the electric-railway industry is facing three alternatives and that the issue will come immediately: First, is municipal ownership; second, private ownership and operation under a sound fundamental basis of regulation and control; and third, complete disappearance of the service. In some cases the service has already disappeared and the tracks have been taken up, but I believe that alternative is unthinkable in large communities except perhaps in part.

I believe our experience in the governmental operation of those utilities which are more or less complex in character has not been reassuring, and I further believe that a majority of the people believe in private operation under proper regulation and control.

Your commission was appointed by the President, and as I read the commission, it is for the purpose of inquiring into and making recommendations as to ways and means to place this essential industry upon a sound basis, upon a basis which will permit it to give proper service to the people, insure a steady flow of capital into the enterprise and safeguard investment that has already honestly been made.

The Committee of One Hundred will present to you through the testimony of men who are best equipped to give testimony on the various aspects of the case a complete picture of the street-railway situation; and we believe that when you have considered it, you will realize that the industry is in dire extremity and that under present conditions nothing can save it from complete bankruptcy, and that you will also agree that such a denouement is unnecessary, unfair, and un-American, and that you will also agree that such a débâcle would throw the larger burden not upon the rich but upon those that are not rich.

All the special Committee of One Hundred ask is that the industry be given its place in the sun.

MR. WARREN. Mr. Chairman, would it be proper at this point to ask for information from the commission as to the dates of the hearings? The association has invited a large number of gentlemen from various parts of the country to appear before the commission on various aspects of the general subject and it is very desirable that we should be able to wire them as to when we expect to ask them to appear before the commission, giving them as nearly an exact data as possible.

THE CHAIRMAN. May I inquire how long you think it will take to present your case?

MR. WARREN. We believe it will take 8 to 10 days, depending somewhat necessarily upon the questions which the commission members may desire to ask of various witnesses who will appear.

THE CHAIRMAN. Is it your pleasure to present your case consecutively?

MR. WARREN. We should prefer to, if that would suit the convenience of the commission. We think we could arrange it better with the witnesses.

THE CHAIRMAN. The commission announces that its hearings will continue until you are through with your case. The hours will be from 10 to 1 o'clock in the morning and from 2 to 5 o'clock in the afternoon. If it is necessary to hold night sessions to expedite this work, the commission will consider that later on.

MR. WARREN. I wish to say that we appreciate very much the kindness and consideration of the commission.

THE CHAIRMAN. Unless otherwise advised, the commission will not sit on Saturday.

MR. WARREN. Then, I will proceed now?

THE CHAIRMAN. You may proceed.

MR. WARREN. I will ask Mr. Welsh to take the stand.

STATEMENT OF MR. JAMES W. WELSH.

Mr. WARREN. Your full name?

Mr. WELSH. James W. Welsh.

Mr. WARREN. And what is your occupation?

Mr. WELSH. Statistician of the American Electric Railway Association.

Mr. WARREN. In what were you engaged prior to that?

Mr. WELSH. Prior to that I was connected with the Emergency Fleet Corporation, in charge of the transportation of employees to the shipyards in the New York district for a period of one year during the war. And prior to that I was connected for a period of about 12 years with the Pittsburgh Railways Co., which is the operating company of the electric railways in the city of Pittsburgh.

Mr. WARREN. What are your educational qualifications?

Mr. WELSH. I am a graduate of the Massachusetts Institute of Technology in electrical engineering and of Harvard University in general course.

Mr. WARREN. Now, Mr. Welsh, in preparation for this hearing have you been preparing statistics and charts showing the condition and operating conditions and general situation of the street railways?

Mr. WELSH. We have.

Mr. WARREN. And what have been the sources from which you have drawn the information that I am going to ask you to lay before the commission?

Mr. WELSH. We have relied to a very large extent upon the special reports of the Department of Commerce of the Census Bureau with reference to electric railways, from the reports of 1890 to 1917. We received advance copies of the latter report through special courtesy of the Census Department. In addition to that we have sent out questionnaires and data sheets to electric-railway companies and, in fact, have done that from time to time as a part of the regular work of the association. We have also relied upon other sources of information with reference to special subjects, but in every case we have, in our presentation here, attempted to show very clearly the source of our information.

Mr. WARREN. I now propose to take up your various charts in the order in which you think they should be introduced. Have you the large charts for the commission? [See charts in Appendix.]

Mr. WELSH. Yes.

Mr. WARREN. Now, Mr. Welsh, what is that chart designed to show?

Mr. WELSH. The purpose of this chart is to illustrate the growth of electric railways from 1890 to 1918. It shows the principal elements of electric-railway property, such as the passenger cars and the miles of line and the miles of track, and we have also shown upon the chart the number of employees.

The point of special interest is the rate of increase in these various items. It is notable that up until 1907 there was a rapid growth; and from 1907 to 1912 all elements of physical property declined somewhat in the rate of increase with a still further falling off in the rate of increase from 1912 to 1917, as indicated by the lesser slope of the lines.

These same facts are brought down in the table which accompanies this chart, at the bottom of the page, where the percentage increase for each of these items is shown over each prior census year.

It is notable, for example, that whereas in the case of miles of line the increase was 15.6 per cent in 1902 over 1890, it fell to 10.7 in 1907, 3.8 per cent in 1912, and 1.4 per cent in 1917.

In the case of the number of passenger cars, the rate of increase fell from 7.1 per cent in 1902 to 3.2 per cent in 1907, 1.8 per cent in 1912, and 1 per cent in 1917.

Mr. WARREN. Now, I notice that on the chart you show certain information for the year 1918. Beginning with those years at the bottom of the chart—are they census years or special street-railway census reports?

Mr. WELSH. Yes.

Mr. WARREN. For 1912, 1917, etc. How did you arrive at your figures for 1918 so far as you were able to give them there?

Mr. WELSH. The 1918 figures in all of these charts which we will present hereafter were obtained from a questionnaire which was sent out to all electric-railway companies, covering various items for both the years 1917 and 1918. In that way a comparison was obtained between the 1917 values for this group of companies and the census value for 1917 and a proportion in that way was determined which was applied to the 1918 figures of the same group of companies to determine a corresponding estimated 1918 census figure. This group of companies, I may say, covered 345 in number and represented over 80 per cent of the operating revenues of the country. We believe it to be a typical group of companies because of the close checking up of various items as will appear hereafter.

Mr. WARREN. Is there anything that the commission would like to ask about either that chart or the table?

Commissioner BEALL. Are you sure of that number of employees? It seems to me that is too low. You have down here 294. I think there is an error. It is around 340 or 350, I think.

Mr. WELSH. That is in thousands. The chart is represented in thousands of employees.

Commissioner BEALL. But you have here 294,000 on your statistics accompanying the map. Is not that pretty low? Are there not more than that to-day?

Mr. WELSH. That is the figure reported by the 1917 census.

Mr. WARREN. Do you know from the census reports, Mr. Welsh, whether that is the total number of employees including trackmen, linemen, car-house men, or only trainmen, so-called?

Mr. WELSH. I understand it represents the total number of employees.

Commissioner SWEET. The principal value of this, I take it, Mr. Welsh, is a comparison at the different periods.

Mr. WELSH. Yes.

Commissioner SWEET. And if it were taken on the same basis—it is not so essential that the absolute number should be correct, if it is taken on the same basis at different times.

Mr. WELSH. That is true.

Commissioner SWEET. That is your main purpose in presenting it, is it not?

Mr. WELSH. That is true; yes.

Mr. WARREN. Have you any reason or explanation of the rapid increase of the number of employees between 1902 and 1912?

Mr. WELSH. Of course, between 1902 and 1912 the industry at large was in its most rapid period of development. However, the number of employees has increased more rapidly than other elements. It is possibly due to various circumstances. One thing may be the tendency toward shortening of the hours of labor and requiring, therefore, a greater number of employees.

Commissioner GADSDEN. Does it not appear on this table that between the same dates the mileage increased 100 per cent?

Commissioner BEALL. The latter was like the New York subways. Did they not put in a lot of additional tracks? I think a good deal of that came in during those years.

Mr. WELSH. Yes; I was merely comparing the rate of increase of the number of employees with the rate of increase in miles of track and passenger cars, which, from the chart, is evidently greater owing to the higher slope of the line.

Commissioner MEEKER. I do not think you can depend upon the slope of the line on an arithmetic chart; you would have to draw it on a logarithmic scale. And the figures of your table do not substantiate the statement that the number of employees increased by a greater percentage than the mileage of line or even the miles of single track.

Mr. WELSH. Well, for example, you can compare the increase in 1912 over 1907, which, in the case of the number of employees, is 5.5 per cent, and in the case of the number of passenger cars is only 1.8 per cent. There is an excess of about three times in the rate of increase for the number of employees over the number of passenger cars.

Commissioner MEEKER. I understood the question was asked from 1902 to 1912 and not from 1907 to 1912.

Mr. WELSH. All right, in the case of 1907 over 1902 the rate of increase in the number of employees is 11.4 per cent, and in the number of passenger cars, 3.2 per cent.

Commissioner MEEKER. The first figures refer to the increase from 1890 to 1902.

Mr. WELSH. That is true.

Commissioner WEHLE. In connection with the number of employees, may I ask you whether in the case of an electric railway and power company where some employees would be allocatable, so to speak, to the power activity and some to the street-railway activity, whether such allocation has been made in arriving at these estimates?

Mr. WELSH. I believe the census reports attempt to do that very thing. So far as I know, even where there is the combined electric railway and power company, the management of the electric-railway end is distinct, at least so far as departmental organization is concerned, from the power business.

Commissioner WEHLE. But you are not certain that such a separation has been made?

Mr. WELSH. I am reasonably certain; yes.

Commissioner WEHLE. Can you ascertain that and put it in the record?

Mr. WELSH. I will; yes.

Mr. WARREN. Do you know as to the relative number of employees in power plants as compared with street railways, as to whether it is smaller or larger generally?

Mr. WELSH. Very considerably smaller.

Mr. WARREN. There is no public utility, is there, in which the number of employees is so large in proportion to the income as in street railways?

Mr. WELSH. No; I believe that is true.

Mr. WARREN. Barring possibly the railroads, but I mean the power industry.

Mr. WELSH. No; that comes about from the great number of men required to operate the cars.

Mr. WARREN. If there are no other questions, I will pass to the next.

Commissioner WEHLE. May I ask another question?

Mr. WELSH. Yes.

Commissioner WEHLE. Will there be any way of finding, with reference to these years that you have listed here, the actual number of passengers carried?

Mr. WELSH. We will show that in a later chart.

Commissioner WEHLE. As of the same years?

Mr. WELSH. Yes.

Mr. WARREN. That is in the next chart.

The figures in the table accompanying Chart C-101 are as follows:

Growth of electric railways.

(Chart C-101—Based on United States census reports.)

Year.	Miles of line.	Miles of single track.	Number of employees.	Number of passenger cars.
1890 ¹	5,783.47	8,123.02	70,764	32,505
1902 ¹	16,645.34	22,576.99	140,769	60,290
1907 ²	25,547.19	34,381.51	221,429	70,016
1912 ²	30,437.86	41,064.82	282,461	76,162
1917 ²	32,547.58	44,835.37	294,826	79,914
1918 ³		44,949.50		

¹ United States Census Reports, 1912, Table 4, p. 184.

² Advance Report, Table 5.

³ Data sheet No. 186 (estimated).

Average per cent increase per year over previous census.

Year.	Miles of line.	Miles of single track.	Number of employees.	Number of passenger cars.
1902.....	15.6	14.8	8.2	7.1
1907.....	10.7	10.5	11.4	3.2
1912.....	3.8	3.9	5.5	1.8
1917.....	1.4	1.8	.9	1.0
1918.....		.3		

Mr. WARREN. Now, what does this chart show?

Mr. WELSH. This chart shows the principal traffic statistics of electric railways, namely, the revenue car-miles and the total pas-

sengers carried. At the same time a comparison is made between the number of passengers carried and the population, which is expressed as the riding habit. The riding habit is a useful measure of the growth of the electric-railway business. It is determined by dividing the annual revenue passengers carried by the total population of the country and therefore represents the average number of rides per year for each inhabitant. The chart indicates——

Commissioner WEHLE. May I interrupt?

Mr. WELSH. Yes.

Commissioner WEHLE. You have done that only for the whole country. You have not done it in particular localities?

Mr. WELSH. We have later a chart for the cities. The chart indicates an increase in this riding habit in every case, but it is noticeable that the rate of increase has been falling off since 1907, as indicated by the decreasing slope of the line. That is the line at the lower part of the chart. I might explain that chart better if I pointed out the lines.

Mr. WARREN. I think that would be very much better.

Mr. WELSH (referring to large chart). The riding habit is indicated by this line here, coming along in this way. The rate of increase from 1902 to 1907 is indicated by this slope of the line and represents an increase of about 25 rides per inhabitant. From 1907 to 1912 the increase is about 15 rides per inhabitant, and from 1912 to 1917 the increase is 9 rides per inhabitant.

Mr. WARREN. That appears also on the table accompanying the chart.

Mr. WELSH. On the accompanying table to the chart. We have also plotted the relative number of passengers per car-mile, which is a measure to some extent of the necessary traffic and to some extent of the number of short riders. This value, however, has been approximately constant throughout the entire period, ranging or averaging about 5 per cent, although as noted there has been a gradual increase.

Mr. WARREN. Can you tell from that line, the relative passengers per car-mile, anything about the number of passengers in the car at any one time, the average number?

Mr. WELSH. In this way you can estimate about what the average number in the car at one time is. The average length of ride on most electric-railway properties is about 3 miles per passenger, and taking five passengers per car-mile as the average it would appear as though 15 passengers on the average is the number in the car at one time. Compare that with the average seating capacity—it is possible to determine roughly the extent to which the equipment is used on the average. This is really an expression of the load factor.

Commissioner MEEKER. Mr. Chairman, I would like to call attention to a rather technical point. I think it may assist the commission if I do so. Take the period 1907 to 1912 and take your riding-habit line and compare that slope on that line with the slope on the revenue car-miles run, you can see at a glance that the slope is very much steeper on the revenue car-miles line, yet, according to your tabular statistics, the percentage of increase in revenue car-miles from 1907 to 1912 was 3.7 per cent, whereas the per cent increase in the riding habit from 1907 to 1912 was 17.6 per cent. What I wish to call attention to is that you can not trust the slope of the line as

indicating anything with reference to percentage increase when it is drawn on an arithmetic scale. If the chart had been drawn, as I think it should have been, on the logarithmic scale, the slope of the line would show exactly the per cent of increase. Now, we need to confine our attention, if we want to learn anything about the percentage increase, to the tabular scale and not to the lines on the chart. I think it would be well, perhaps, to have the charts redrawn for the purpose of showing the percentage increase to the main line in all of these. I just wanted to make that point, Mr. Chairman.

Mr. WARREN. We will try to have the charts redrawn.

Mr. WELSH. Well, I would just like to say that the charts are drawn to a scale.

Commissioner MEEKER. Oh, yes.

Mr. WELSH. In other words, the period from 1890 to 1902, representing 12 years, is on the same scale as the period from 1902 to 1907. In other words, one is 5 years and the other is 12 years, and the distances are indicated.

Commissioner MEEKER. But you caught my point. The slope of the line there is very much steeper on the upper line, but the percentage increase indicated is very much smaller, because you have so much larger base to measure the prior line.

Mr. WELSH. In other words, each percentage is figured on the prior census, and so a new base occurs in every census year. In other words, the base for the 1917 figures in the table is 1918—

Commissioner MEEKER. No question is raised as to the statistical accuracy of the figures. The only point is that we can not trust the slope of the line to represent percentage increase. We must get that from your statistical data.

Mr. WARREN. If the commission would like to have the charts redrawn on the above terms, you could do that?

Mr. WELSH. We could. It would probably take some time to do so.

Commissioner MEEKER. I do not think that is at all necessary, if we have the figures before us.

Mr. WARREN. That is really all you need?

Commissioner MEEKER. Yes, sir.

Mr. WARREN. I suppose there is no question but what each line indicates that particular item?

Commissioner MEEKER. What the lines on the chart show, of course, is absolute differentials. It shows that perfectly; but when you come to show percentages, you will have to be very careful with your charts.

Mr. WARREN. Yes. It does not show the percentage, but it does show the growth and development.

Mr. WELSH. Yes; that is so.

Mr. WARREN. Is there anything else you wish to call attention to, Mr. Welsh, on that chart or the accompanying table?

Mr. WELSH. No; I think not.

Mr. WARREN. Now, Mr. Welsh, I think it would be well if you take your papers over here, where you will be near the chart and where you can use the pointer.

Mr. WELSH. Very well.

The figures on the table accompanying Chart C-102 are as follows:

Electric railway traffic.

(Chart C-102.—Based on United States census reports.)

	1912	1917	1918
Revenue car-miles.....	¹ 1,921,620,074	¹ 2,139,801,530	² 2,051,355,560
Average per cent increase per year over prior census.....	3.7	2.2	³ 4.1
Riding habit.....	⁴ 100	⁴ 109	.....
Average per cent increase per year over prior census.....	17.6	9.0	.....
Total passengers carried.....	¹ 12,135,341,716	¹ 14,506,914,573	² 14,243,415,830
Average per cent increase per year over prior census.....	5.4	3.9	³ 1.8
Revenue passengers.....	¹ 9,545,554,667	¹ 11,304,660,462	² 11,107,864,347
Average per cent increase per year over prior census.....	5.6	3.6	³ 1.7
Revenue passengers per car-mile.....	¹ 5.06	15.41	.....
Average per cent increase per year over prior census.....	1.5	1.4	.....

¹ Advance Report, Table 5.

² Data sheet No. 135 (estimated).

³ Decrease.

⁴ United States census reports.

⁵ Advance report, Table 11.

⁶ Estimated as 78 per cent of total passengers as estimated by American Electric Railway Association for 1918 census. Rates of revenue to total passengers (78 per cent) found to be practically constant for years 1917, 1912, and 1907.

Electric railway traffic.

(Chart C-102.—Based on United States census reports.)

	1890	1902	1907
Revenue car-miles.....	¹ 383,178,085	¹ 1,144,430,466	² 1,617,731,300
Average per cent increase per year over prior census.....	.....	16.5	8.3
Riding habit.....	³ 32	⁴ 61	⁵ 85
Average per cent increase per year over prior census.....	.....	90.6	39.3
Total passengers carried ⁶	⁷ 2,023,010,202	⁸ 5,836,615,296	⁹ 9,533,080,760
Average per cent increase per year over prior census.....	.....	15.7	12.7
Revenue passengers ⁶	⁷ 2,023,010,202	⁸ 4,774,211,904	⁹ 7,441,114,508
Average per cent increase per year over prior census.....	.....	11.3	11.2
Revenue passengers per car-mile.....	.....	² 4.26	³ 4.70
Average per cent increase per year over prior census.....	.....	.....	2.1

¹ United States Census Report, 1907, p. 33, text.

² United States Census Report, 1912, Table 156, p. 293.

³ Advance Report, Table 5.

⁴ United States census reports.

⁵ Advance Report, Table 11.

⁶ Transfer and free passengers not noted.

⁷ United States Census Report, 1902, Table 1, p. 6.

⁸ United States Census Report, 1912, Table 156, p. 292.

Mr. WARREN. This chart, which is marked "C 107," indicates what?

Mr. WELSH. This chart supplements the preceding chart, and shows the number of revenue passengers carried, as distinguished from the total number of passengers carried on the previous chart. We have again plotted the number of revenue passengers per inhabitant, but in this chart have included the year 1918, as well as the census year.

Mr. WARREN. And you have confined this to the revenue passengers?

Mr. WELSH. Yes; this chart is based on revenue passengers.

Mr. WARREN. Well, the revenue passenger is the one who really pays a fare, is he not?

Mr. WELSH. Yes, sir.

Mr. WARREN. As distinguished from the transfer passenger?

Mr. WELSH. Free passengers and those who pay for transfers.

Mr. WARREN. That is an account of these passengers, indicating whatever the revenue will be at the rate per passenger?

Mr. WELSH. Yes.

Mr. WARREN. And the total number of passengers does not indicate that, but where you show on this chart the revenue passengers per inhabitant, a more simple way of stating it, I suppose, would be the number of rides per inhabitant—the average number of rides?

Mr. WELSH. That would be a little better expression.

The 1918 figures were rather interesting as indicating an actual falling off, both in the total number of revenue passengers carried and also in the number of revenue passengers per inhabitant.

The 1918 figures have been based on the same 345 companies as referred to before. This falling off in riding habit is probably due to a number of causes—the abnormal winter in the early part of the year 1918; the operation of the draft law, taking away a number of million men and, at the same time, undoubtedly reducing the pleasure riding during the summer months by people generally; and the influenza epidemic in the fall, on account of which in many cities all community life was more or less interfered with and in many cases stores were shut up and theaters closed.

Mr. WARREN. And the public was advised to avoid street-cars, like all other places of congregating, so far as possible—is not that so—in many places?

Mr. WELSH. Yes, sir.

We have also plotted the percentage increase in revenue passengers per inhabitant over the chart for the previous year, and that percentage indicates a falling off from one year to the next. That percentage is a comparison of each census period to the preceding.

Commissioner MEEKER. In 1918, the percentage decreased?

Mr. WELSH. Yes; that is due to the actual decrease in the number of passengers per inhabitant.

Mr. WARREN. I would ask, Mr. Chairman, that the figures in these tables go into the record, without taking the time of the commission to read them, and I am handing to the reporter the figures for that purpose, if that is satisfactory to the commission.

The CHAIRMAN. Very well.

Mr. WARREN. I think we will save considerable time by doing that.

The figures contained on the chart referred to (C-107), are as follows:

Riding habit.

(Chart C-107.—Based on United States census reports.)

	Revenue passengers per inhabitant.	Number of revenue passengers carried.	Increase in revenue passengers per inhabitant over prior census.	Source.
			<i>Per cent.</i>	
1890.....	32	2,023,010,202	.....	Advance report, Table 11.
1902.....	61	4,774,211,904	28	Do.
1907.....	85	7,441,114,508	25	Do.
1912.....	100	9,545,554,667	15	Do.
1917.....	109	11,304,660,462	9	Do.
1918.....	106	11,107,864,347	3	

¹ Estimated population of United States July 1, 1918.

² Data sheet No. 186 (estimated).

³ Revenue passengers per inhabitant 1917 less 1918 (above); decrease.

Commissioner GADSDEN. Do you propose to put in evidence the names of the 388 companies used in making these estimates, Mr. Welsh?

Mr. WELSH. We have not prepared that list. We can readily do so.

Commissioner GADSDEN. I suggest that you do that, together with their mileage. You said that they did represent 80 per cent of the operating revenues.

Mr. WELSH. They represent 80 per cent of the operating revenues.

Commissioner BEALL. Mr. Welsh, do these figures include the properties in all of the large cities, or any of the big cities right now?

Mr. WELSH. They include a great many of the large cities.

Commissioner BEALL. Well, for instance, do they include all of the larger cities, like Washington, New York, and Boston?

Mr. WELSH. They do.

Commissioner BEALL. Chicago and San Francisco?

Mr. WELSH. I believe New York City is not in. We have Brooklyn, but New York is not in. We have Philadelphia and Boston.

Commissioner BEALL. If that is the case, you have left out one of the largest and most important of the properties. Are not those figures available?

Mr. WELSH. I will have to check that up as to whether the New York City lines were included. I am not quite sure about that. I know practically all of the large cities are included. Of course, some of the smaller cities were also not included. So we believe it represents a true picture.

Commissioner GADSDEN. That is what I had in mind in requesting that you give us the names of the companies.

Mr. WELSH. Yes.

Mr. WARREN. But these no doubt represent 80 per cent of the operating revenues?

Mr. WELSH. There is no doubt of that.

Mr. WARREN. Whatever companies they are.

Commissioner BEALL. I think you have left out some companies, if you will permit me to say so, that will strengthen your case.

Mr. WARREN. How is that?

Commissioner BEALL. I think you have left out some of the companies that will strengthen your case more than any others.

Mr. WARREN. I think so, too. As far as we have gone, we have not exaggerated the situation.

Is there anything else from that chart, Mr. Welsh, that you want to call the attention of the commission to?

Mr. WELSH. I think not.

Mr. WARREN. Regarding the companies that we have used in these computations, the 345 companies, Mr. Pardee calls my attention to the fact that we used all the companies from which we can get reports. Some companies, for some reason or other, do not respond to the inquiries for the association. The 345 companies report regularly, as I understand it, to the association, their earnings and operating expenses and other items of interest; so that the association is able, from those reports, to make up combined exhibits for the companies. Some of the companies do not report, represent-

ing about one-fifth of the operating revenue, and we will furnish the commission a list of the 345 companies here.

The CHAIRMAN. Can we have in the record a statement showing how you proceed to get the average riding habit for a year?

Mr. WELSH. Those figures are taken directly from the census tables. The reference in table accompanying Chart No. 3, I believe, gives the reference to the census report in which is quoted the number of rides per total inhabitants. It is obtained, I might say, by dividing the annual number of annual passengers carried by the total population of the country in each year.

The CHAIRMAN. That is what I wanted to get into the record.

Commissioner WEHLE. The passengers carried in the 345 cities?

Mr. WELSH. No; I am referring to the census report, reporting on all the companies in the country. The 345 companies refer to 1918 only, the estimate for 1918.

Mr. WARREN. You have used in every case the census figures through 1917, have you not?

Mr. WELSH. Exactly.

Mr. WARREN. And for 1918, not having the census figures, Mr. Welsh has made an estimate for all the companies based on the showing of the 345 companies, from which he gets monthly returns.

Commissioner WEHLE. Taking the census as applied to the figures prior to 1918, is that a census of the entire population of the country, rural and urban?

Mr. WELSH. The figures used for determining the average rides per total inhabitants are those figures, but the census, if I understand your question correctly, is the special census report gotten out by the Department of Commerce covering electric railways.

Commissioner WEHLE. Did you use the figures that cover the electric railways as they were obtained by the Department of Commerce specially, where there are electric railways?

Mr. WELSH. All electric railways in the United States are included.

Commissioner WEHLE. Then you used the population figure, which you got from the United States Census reports in places where there are and where there are not electric railways, both?

Mr. WELSH. In the United States.

Commissioner WEHLE. Now, is there anywhere a compilation or comparison such as you worked out here in principle using the figures of population in those places where there are electric railways?

Mr. WELSH. To this extent: We have taken the population of the urban districts, which is shown separately in the census reports, and we will later introduce such a chart.

Commissioner WEHLE. Will those charts cover the same ground as the chart you have just been showing us?

Mr. WELSH. So far as riding and traffic statistics are concerned; yes, sir.

Mr. WARREN. Mr. Welsh, this computation of of the number of rides per inhabitant is contained in the census report itself, is it not?

Mr. WELSH. It is.

Mr. WARREN. You did not figure that?

Mr. WELSH. No, sir.

Mr. WARREN. You simply took the census figures?

Mr. WELSH. Yes, sir.

Mr. WARREN. As to this next chart, you have not a large chart for that, I believe, have you?

Mr. WELSH. It seems to be missing. We slipped up on that.

Mr. WARREN. This is marked C-145.

The figures accompanying the chart referred to, C-145, are as follows :

Power generated and capacity of generating and subsidiary equipment.

(Chart C-145 -Based on U. S. Census Report of 1912, Table 17, p. 196.)

	1902	1907	1912	1917
Kilowatt capacity.....kilowatts..	898,362	1,723,416	2,508,066	2,924,779
Subsidiary equipment.....kilowatts..	160,053	942,232	1,637,250	2,339,333
Power generated.....kilowatts..	2,231,484,397	4,759,130,100	6,052,699,008	7,290,502,789

Mr. WELSH. This chart is another indication of the growth of electric railways based upon the power situation. We have plotted here the plant capacity in the middle curve, which is designated kilowatts or generators, and also the capacity of the subsidiary equipment on the bottom curve.

Mr. WARREN. What do you mean by "subsidiary equipment," Mr. Welsh?

Mr. WELSH. The subsidiary equipment covers largely the sub-station apparatus; that is, the converting machinery, in which alternating current is transformed into direct current for use on the trolley wires; and it therefore represents very largely the purchase power, since that is the way, in almost every case, that power is purchased from the power companies, for the reason that power companies generate alternating current, whereas the electric railways, in their own power stations, generate largely direct current.

Mr. WARREN. And the third line from the bottom, "power generated, kilowatt-hours," represents the—

Mr. WELSH. The annual output or the power used by electric railways.

Mr. WARREN. Now, turning to the table accompanying this chart, will you read some of those figures, those which you consider most informing?

Mr. WELSH. In the first place, I would like to make a correction under the column "1912." In the line marked "Power generated," 2,000,000,000 should be 6,000,000,000. It is a typographical error.

The significant thing in this table—

Mr. WARREN. Just a moment, Mr. Welsh. In this same line should not the "Power generated (KW)" be "KWH"?

Mr. WELSH. That correction should also be made.

Mr. WARREN. Kilowatt hours on the last line of the page.

Now, if you will just read those figures right across the page—

Mr. WELSH. Yes.

Mr. WARREN. Showing the increases.

Mr. WELSH. The increase in kilowatt capacity of generating equipment is indicated.

In 1902 it was 898,362; in 1917, 1,723,416; in 1912, 2,508,066; and in 1917, 2,924,779.

Commissioner MEEKER. That is kilowatts, not kilowatt hours?

Mr. WELSH. That is kilowatt capacity, and represents the station and plant equipment, and on the next line, marked "Subsidiary equipment," it likewise represents the substation capacity or equipment devoted to the purchase of power. It has increased from 160,053 in 1902 to 942,232 in 1907, 1,637,260 in 1912, and 2,339,333 in 1917.

It is notable here that there has been a falling off in the rate of increase in the first line; that is, kilowatt capacity of generated power in 1917 as compared with 1912, as compared with a similar increase in subsidiary equipment. This is due to the increasing tendency of electric railways to purchase their power rather than to generate it themselves.

Mr. WARREN. And that is partly due, perhaps, to the increasing difficulty of the electric railways to receive the capital necessary to enlarge their power plants?

Mr. WELSH. Undoubtedly.

Mr. WARREN. Now, power generated in kilowatt hours.

Mr. WELSH. Power generated, kilowatt hours, has increased from two and a quarter billion, in round numbers, in 1902 to four and three-quarter billions in 1907, over six billion in 1912, and seven and a quarter billion in 1917, in round numbers.

Mr. WARREN. You have finished that line, have you?

Mr. WELSH. That is all.

Mr. WARREN. What does this indicate as to the load factor of the street railways?

Mr. WELSH. It indicates that the load factor has been decreasing. In other words, it indicates that the railways have had to overload their equipment more in 1917 than they had in previous years, owing to the fact that they have had to put a greater output into the same capacity.

Mr. WARREN. What do you mean by "load factor"? Very likely the commission knows, but I do not know exactly what that is.

Mr. WELSH. The load factor is the ratio of the average output to the maximum output.

Mr. WARREN. And what does this indicate about the peaks?

Mr. WELSH. It indicates that the peaks have been increasing in extent; in other words, that the electric railways have had to carry more people during the rush hours than they have had in the past, and that the increase in business has been largely during the rush hours.

Mr. WARREN. Well, what bearing has that on the expense of operation of a street railway, suppose the peak load does increase?

Mr. WELSH. The peak load is, from all standpoints, the most expensive to carry. It involves the use of equipment, in power-plant capacity, in the number of passenger cars, in the number of men required to operate the system, and in all matters of plant and facility for comparatively few hours in the day, and that equipment can not be used at any other time. For that reason, the rush-hour business is the most expensive and is more costly than the average.

Mr. WARREN. And that applies, in referring to this particular table, to this very power situation here, does it?

Mr. WELSH. Yes, sir.

Mr. WARREN. And do these figures fairly show that the peak has increased, notwithstanding what the previous figures show, that the traffic was increasing at a very much less rate and an actual falling off in 1918?

Mr. WELSH. They do; yes, sir.

Mr. WARREN. They do?

Mr. WELSH. Yes, sir.

Mr. WARREN. Is there anything else on that table?

Mr. WELSH. I think not.

Mr. WARREN. Is there anything that the commission wishes to ask on this?

Commissioner MEEKER. Nothing is shown on this chart or in that table about 1918. That was shown on the previous chart.

Mr. WARREN. I spoke of 1918 with reference to the traffic falling off, Mr. Commissioner Meeker, and I asked Mr. Welsh whether the figures regarding power shown here indicated an increase of the peak load, not for 1918 but for all recent years.

As a matter of fact, Mr. Welsh, if I may put this in at this point, apart from the chart altogether, apart from what the power construction shows, do you happen to know whether it is a fact that the peak load has been increasing in recent years?

Mr. WELSH. It has.

Mr. WARREN. And among other causes is one that is particularly contributory to that as regards the hours of labor generally?

Mr. WELSH. Yes; the coming together or the coincidence of the peaks in the matter of employment has had a great deal to do with that.

That same thing has been illustrated in the reverse way here in Washington by the plan which was in operation here during the war of staggering hours of employment for the very purpose of spreading the peak and avoiding the necessity of the transportation companies carrying all of the people at one time or during one hour in the morning and one hour in the evening.

Mr. WARREN. In other words, the more general adoption of the eight-hour day for labor has brought their day much nearer to the day of other occupations dependent upon street-car service?

Mr. WELSH. Yes, sir.

Mr. WARREN. So that the peaks have become coincident?

Mr. WELSH. Yes, sir.

Commissioner WEHLE. I would like to ask you a question similar to the one I asked you with reference to the employees in the chart you presented earlier.

This table which refers to power generated, does it take into consideration the power generated by the companies which are both power companies and electric companies, or is there a separation there where the two are reported in the same report?

Mr. WELSH. There is that separation, in this way: There are some electric-railway companies who sell a small amount of power. Those companies are not separated here, and there is a separation between combined properties where power is sold for general lighting and power business as between electric-power companies and electric-railway companies.

Commissioner WEHLE. In getting up this chart, then, there has been a separation as to such power as is used for power purposes, as distinguished from electric-railway service, where the proportion used for power is large?

Mr. WELSH. Well, that is entirely in the hands of the Census Department. We have used their figures in both cases—both in the case of the power and in the case of the number of employees that you spoke of before—and I am confident that only electric-railway properties as such have been included in each case. We have completed separately the power and lighting departments of any combined companies, both in the power generated and in the number of employees.

Commissioner WEHLE. Would you suggest that we call in here for the record those of the officers who are responsible for the compiling of these figures in the United States Census and have that point clarified?

Mr. WELSH. It might be very helpful to do so, if there is any question about that.

Mr. WARREN. Well, what do you understand to be the fact about that power generated?

Mr. WELSH. It represents largely the power output of the direct-current stations of the electric-railway companies, since the electric-railway generating stations are largely of that type.

Mr. WARREN. And to that would be added such power as was actually purchased for street-railway purposes?

Mr. WELSH. Yes.

Mr. WARREN. And you understand that it would not include power that was sold by a combined electric-light and railway company for commercial and general purposes?

Mr. WELSH. It would not.

Mr. WARREN. Is there anything else in the census report which shows clearly how they arrived at that?

Mr. WELSH. It may be that we could take care of that in that way by just reading the extract from the census report, which I believe will make that clear.

Mr. WARREN. I seem to remember that in previous census reports there was some statement about that.

Mr. WELSH. Yes.

Mr. WARREN. Now, Mr. Welsh, this chart shows what?

Mr. WELSH. This chart shows the mileage of electric-railway companies going into receivership from the year 1909 to 1919. The curve as plotted is a cumulative curve, and each year includes the mileage of the previous year.

Mr. WARREN. So that it shows the total mileage of all street railways that have gone into receivership, whether still in receivership or not since—

Mr. WELSH. Since 1909.

Mr. WARREN (continuing). Nineteen hundred and nine?

Mr. WELSH. Yes, sir.

The figures on the statement accompanying this chart (Chart 143) are as follows:

Growth in the extent of receiverships.

[Chart 143—As reported in the Electric Railway Journal for Jan. 4, 1919.]

Year.	Miles of single track.	Year.	Miles of single track.
1909.....	558	1914.....	352
1910.....	697	1915.....	1,152
1911.....	519	1916.....	359
1912.....	374	1917.....	1,177
1913.....	343	1918.....	2,108

Values for miles of track are cumulative each year, including amounts for previous years.

Mr. WELSH. The interesting thing in connection with this chart is the rapid increase from the year 1918 to 1919 of over 2,000 miles, which, from the table, will be seen to be about two to three times the average mileage during the entire period.

Mr. WARREN. And the table shows what?

Mr. WELSH. The table shows 2,108 miles going into receivership in the year 1918.

Mr. WARREN. And similarly, the number that have gone in each year?

Mr. WELSH. Yes, sir.

Commissioner MEEKER. The table is not cumulative?

Mr. WELSH. The table is not cumulative.

Mr. WARREN. No; that statement, I think, is wrong on the table, is it not? "Values for miles of track are cumulative, each year including amounts for previous years."

Mr. WELSH. That is an error. That statement was put on the chart, but should not apply to the table.

Commissioner MEEKER. It should be stricken off?

Mr. WELSH. It should be stricken off.

Mr. WARREN. It should be stricken off the table.

Commissioner GADSDEN. Mr. Welsh, what is the total mileage as of this date in the hands of receivers?

Mr. WELSH. We will show that in the next chart, Mr. Gadsden.

Commissioner GADSDEN. All right.

Mr. WARREN. Is that all on that chart, Mr. Welsh?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, Mr. Welsh, what does this chart show?

Mr. WELSH. This chart shows the number of miles of track of companies in receivership; of companies whose lines have been dismantled and junked; and of companies that have abandoned portions of their trackage.

The figures accompanying this chart (Chart C-146) are as follows:

Number of receiverships, abandonments, and lines junked, in effect as of May 31, 1919.

(Chart C-146—Based on electric-railway journals.)

	Number of companies.	Miles of single track.
Receiverships.....	62	5,912
Lines dismantled and junked.....	61	791
Abandonments.....	38	257

Mr. WELSH. This chart is based on the situation as of May 31, 1919, and shows that at that time there were 62 companies having a mileage of 5,912 in receivership, 61 companies having 791 miles of line dismantled and junked, and 38 companies having 257 miles abandoned.

Mr. WARREN. Now, those last two items do not mean that 61 companies have had all of their lines dismantled and junked, does it?

Mr. WELSH. No.

Mr. WARREN. But that 61 companies have, together, dismantled and junked 791 miles?

Mr. WELSH. Exactly.

Mr. WARREN. And so with the abandoned?

Mr. WELSH. Yes, sir.

Commissioner BEALL. Do you propose to file the names of those companies with us?

Mr. WELSH. Yes, sir.

Commissioner BEALL. And will the person who has made this exhibit furnish the names of the companies referred to on this chart?

Mr. WARREN. They will be here this afternoon.

Mr. WELSH. I have them here this morning, some place.

Commissioner MEEKER. I would like to ask a question about the lines dismantled and junked and the lines abandoned.

Are they, in any instance or in large part, lines that were built to accommodate war plants, munition plants, shipyards, etc., that have ceased to make munitions or to build ships?

Mr. WELSH. No; I believe that I can say that in no case was there any of those included.

Mr. WARREN. I can answer that for Massachusetts. I am sure that there is nothing of that kind in Massachusetts.

Mr. WELSH. The list will indicate that, I believe, too.

Commissioner MEEKER. The list will indicate that?

Mr. WARREN. Yes.

Mr. WELSH. Yes.

Mr. WARREN. We will get out that list and give it to you as soon as possible.

Commissioner WEHLE. Would the figures which represent the dismantled and junked lines represent in any degree lines which have been substituted?

Mr. WELSH. I do not believe I know what you mean by "substituted."

Mr. WARREN. Dismantling 10 miles of track in order to build a shorter line 5 miles, or another line of 10 miles by a different route, which better served the public.

Mr. WELSH. I think not, as a general rule. They represent largely some unprofitable extensions, outer ends of lines, and some inter-urban lines. There has been a great deal of mileage in the Massachusetts district that has been abandoned and dismantled of that character.

Commissioner MEEKER. Does your statement show anything with reference to the causes for the abandonment or dismantling?

Mr. WELSH. The one we have prepared merely shows the names of the companies and the mileage that has been dismantled.

Commissioner WEHLE. Could there be a separation made there in order to make the chart more serviceable?

Mr. WELSH. I think it would be possible for us to secure the cause in each case.

Commissioner WEHLE. Well, would it be practicable?

Mr. WELSH. I would say that we could get that in the majority of cases. We might not in every case.

Commissioner GADSDEN. One of the noted cases of that kind is the Bay State.

Mr. WELSH. Yes; I had that in mind.

Commissioner GADSDEN. If the receiver of the Bay State were brought before the commission, he might be able to give the reason for the abandonment of the 25 or 30 miles, would he not?

Mr. WELSH. I should say so.

Mr. WARREN. I was to have later the chairman of the trustees of the Bay State here on this very subject of abandonment. The Bay State has abandoned a very small proportion of what it believes it shall be obliged to abandon unless some relief is obtained. I think the receiver proposes to abandon something like 200 miles, but that actually abandoned, as shown in this table, as I recall it, is only about 30 miles. In some cases the companies have simply abandoned the whole proposition. On the theory that one can not get blood out of a stone, I do not suppose a bankrupted company could be forced to operate a losing venture indefinitely.

The CHAIRMAN. If that is convenient for you, you will have a witness who will present testimony or else file exhibits on that?

Mr. WARREN. On these abandonments?

The CHAIRMAN. Giving the reasons for those abandonments.

Mr. WARREN. Yes; we will be very glad to do that, as far as possible.

Have you anything else on that exhibit?

Mr. WELSH. No, sir; except that I might state that the total mileage represented by these companies, being just under 7,000, is approximately 16 per cent of the total mileage of the electric railways in the country, or, in other words, about one-sixth of the mileage of the country is in serious difficulty or has been abandoned.

Mr. WARREN. The next exhibit that we should like to put in, but we shall not have it ready until this afternoon, is a combined balance sheet of the street-railway companies of the country, which is contained in the census report, is it not, Mr. Welsh?

Mr. WELSH. Yes, sir.

Mr. WARREN. We can obtain the advance census sheets' showing, and we propose to file that.

We have now a list of the companies in receivership and those which have dismantled and which have abandoned track, and we will file those with you now.

The list of railways thus referred to is as follows:

Electric railways that have been dismantled and sold as junk, June 7, 1919.

	1915.	Miles of track dismantled.
Mountain Railway, West Orange, N. J.....		2. 0
1916.		
Lima & Honeoye Light & Railroad Co.....		4. 50
Elkins Electric Railway, Elkins, W. Va.....		9. 00
Lake Erie, Bowling Green & Napoleon Railway, Bowling Green, Ohio.....		12. 50
Lancaster & Southern Street Railway, Millersville, Pa.....		7. 30
1917.		
Alton, Jacksonville Railway, Alton, Ill.....		21. 30
Arkansas Northwestern Railroad.....		2. 13
Catskill Traction Co., Catskill, N. Y.....		5. 50
City Railway, Mount Vernon, Ill.....		3. 25
Cleburne Traction Co.....		8. 00
Goshen, South Bend & Chicago Railway, Goshen, N. Y.....		20. 00
Mexico Investment & Construction Co.....		16. 00
Mount Vernon Railway, Mount Vernon, Ohio.....		9. 00
Norfolk City & Suburban Railway, Norfolk, Va.....		14. 50
St. Lawrence International Electric Railroad & Land Co., Alexandria Bay, N. Y.....		7. 79
Norfolk & Ocean View Railway, Norfolk, Va.....		10. 00
Sacramento Valley Electric Railroad, Dixon, Calif.....		1. 30
Waycross Street & Suburban Railway, Waycross, Ga.....		7. 20
1918.		
Adirondack Lakes Traction Co., Gloversville, N. Y.....		5. 00
Billings Traction Co., Billings, Mont.....		6. 00
Bluffton, Geneva & Cella Traction Co., Bluffton, Ind.....		19. 00
Bristol Traction Co., Bristol, Tenn.....		15. 30
Clarksville Railroad, Clarksville, Ga.....		1. 25
Central of Florida Railway, Daytona, Fla.....		5. 00
Consolidated Street Railway, Strong City, Kans.....		2. 00
Covington & Oxford Street Railway, Oxford, Ga.....		6. 00
Dayton, Springfield & Xenia Southern Railway, Dayton, Ohio.....		12. 00
Denton Traction Co., Denton, Tex.....		4. 50
Gettysburg Railway, Gettysburg, Pa.....		6. 50
Interurban Railway & Terminal Co., Cincinnati, Ohio.....		23. 00
London & Lake Erie Railway & Transportation Co., London, Ontario, Canada.....		28. 00
Marthas Vineyard Street Railway, Marthas Vineyard, Mass.....		1. 10
Memphis & Rugby Railway, Rugby, Tenn.....		2. 50
Middletown Street Railway, Middletown, Ohio.....		1. 00
Montecito Railroad, Los Angeles, Calif.....		1. 46
New Jersey Rapid Transit Co., Sea Isle City, N. J.....		8. 00
Northwestern Traction Co., Brazil, N. Dak.....		5. 00
Norwood, Canton & Sharon Street Railway, Foxboro, Mass. (Norwood division) ¹		2. 50
Oak Bluffs Street Railway, Oak Bluffs, Mass.....		6. 47
Oklahoma Union Railway, Sapulpa, Okla.....		1. 50

¹ Part of road.

	Miles of track dismantled.
Richmond & Rappahannock River Railway, Richmond, Va.....	16.30
Rockland, Thomaston & St. George Railway, Rockland, Me.....	5.71
Rutland Railway, Light & Power Co., Rutland, Vt. ¹	2.50
St. Joseph Valley Traction Co., Elkhart, Ind. ¹	7.50
St. Louis, Lakewood & Grant Park Railway.....	4.00
St. Simon Railroad, Brunswick, Ga.....	1.70
San Point & Interurban Railway (Ltd.), San Point, Idaho.....	6.00
Sioux City, Crystal Lake & Homer Electric Railway, Dakota City, Nebr..	4.00
San Jose Traction Co., Jacksonville, Fla.....	3.00
Taunton & Pawtucket Street Railway, Taunton, Mass.....	14.00
Topeka Railway, Topeka, Kans.....	¹ 1.50
Yazoo Municipal Railway, Yazoo, Miss.....	4.00
Woodstock-Sycamore Traction Co., Sycamore, Ill.....	25.00
Worcester & Warren Street Railway, Brookfield, Mass.....	20.10
Twin Falls Railroad, Twin Falls, Idaho.....	12.00
Uvalde & Leona Valley Interurban Railway, Leona Valley, Tex.....	8.00
Ware & Brookfield Street Railway, Ware, Mass.....	11.71
Lincoln Traction Co., Lincoln, Nebr.....	1.00
Cincinnati, Bluffton & Chicago Railroad, Huntington, Ind.....	58.00

1919.

Lake James Railroad, Angola, Ind.....	3.75
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Total number of miles of track dismantled and sold as junk.....	534.12
Total number of miles of track on which service was abandoned ²	256.58

Grand total.....	796.70
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Electric railways that have abandoned service, June 7, 1919.

1915.

	Miles of track abandoned.
Binghamton Railway Co., Binghamton, N. Y.....	feet-- 600

1916.

Forest Grove Transportation Co., Oregon.....	2.70
--	------

1917.

Amarilla Street Railway, Amarillo, Tex.....	8.20
Fort Smith, Okla., Light & Traction Co., Fort Smith, Ark.....	1.21
Richmond & Chesapeake Bay Railway, Richmond, Va.....	14.80

1918.

Greenville Railway & Light Co., Greenville, Tex.....	7.00
Texas City Street Railway Co., Texas City, Tex.....	4.00
Bay State Street Railway Co., Boston, Mass.....	¹ 30.40
Berkshire Street Railway.....	¹ 5.05
Bristol & Norfolk Street Railway, Randolph, Mass.....	6.44
Columbus, Magnetic Springs & Northern Railway, Richwood, Ohio.....	18.50
Conway Electric Street Railway, Conway, Mass.....	6.60
Fernandina Municipal Railway, Fernandina, Fla.....	2.00
Fort Scott Gas & Electric Co., Fort Scott, Kans.....	7.00
Fryeburg Horse Railroad, Fryeburg, Me.....	3.00
Hamilton Radical Electric Railway, Hamilton, Ontario, Canada.....	29.10
Laconia Street Railway, Laconia, N. H.....	¹ 1.30
Lebanon & Franklin Traction Co., Dayton, Ohio.....	10.80
Madison Light & Railway Co., Madison, Ind.....	3.50
Mount Vernon Railway, Mount Vernon, Ohio.....	9.00
Norwood, Canton & Sharon Street Railway, Foxboro, Mass.....	4.00

¹ Part of road.² Exclusive of companies where mileage figures were not available

	Miles of track abandoned.
Ocean City Electric Railroad, Ocean City, N. J.....	10.00
Oxford Electric Co., Norway, Me.....	2.13
Parkersburg & Ohio Electric Railway, Parkersburg, W. Va.....	5.00
Plymouth & Sandwich Street Railway, Plymouth, Mass.....	17.43
Fresno Interurban Railway, Fresno, Calif. (¹ Lines in Fresno.).....	
Norfolk & Bristol Street Railway, Foxboro, Mass.....	
Kansas City Railways, Kansas City, Mo. (Argentine, Minn., line.).....	
Indiana Utilities Co., Angola to Lake James, Ind.....	3.75
Babylon Railroad, Babylon, N. Y.....	8.00

1919.

Los Angeles & San Diego Railway, San Diego, Calif.....	21.54
Buffalo & Lackawanna Traction Co., Buffalo, N. Y.....	8.80
Iola Electric Railroad, Iola, Kans.....	
Tiffin, Fostoria & Eastern Traction Co.....	
Yonkers Railroad Co., Yonkers, N. Y. (Hastings).....	3.30
Pacific Electric Railway, Los Angeles, Calif. (Brockton Avenue Line in Riverside).....	
Yakima Valley Transportation Co., North Yakima, Wash. (North Fourth Street Line).....	
Bartlesville Interurban Railway Co., Bartlesville, Okla. (City Loop Line).....	2.03

Total number of miles of track on which service was abandoned exclusive of companies where mileage figures were not avail- able.....	256.58
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Electric railways in the hands of receivers, June 7, 1919.

	Miles of single track operated.
Kansas City, Lawrence & Topeka Railroad, Kansas City, Mo.....	12.00
Birmingham Railway, Light & Power Co., Birmingham, Ala.....	153.65
Buffalo Southern Railway, Buffalo, N. Y.....	25.35
Interurban Railway & Terminal Co., Cincinnati, Ohio.....	65.60
Atlantic City & Shore Railroad Co., Atlantic City, N. J.....	30.05
Atlantic Shore Railway, Sanford, Me.....	50.00
Buffalo & Lake Erie Traction Co., Buffalo, N. Y.....	168.00
North Branch Transit Co., Bloomsburg, Pa.....	30.00
Winona Interurban Railway, Warsaw, Ind.....	70.00
Bay State Street Railway Co., Boston, Mass.....	955.07
Beech Grove Traction Co., Beech Grove, Ind.....	6.30
Grafton Light & Power Co., Grafton, W. Va.....	7.00
Hornell Traction Co., Hornell, N. Y.....	10.90
Manhattan & Queens Traction Corporation, New York City.....	22.00
Pennsylvania & Ohio Railway, Ashtabula, Ohio.....	26.00
Plymouth & Shelby Traction Co., Norwalk, Ohio.....	6.97
Southern & Cambria Railway, Johnstown, Pa.....	30.00
Trans-St. Marys Traction Co., Sault Ste. Marie, Mich.....	7.52
Southern Traction Co., of Illinois, East St. Louis, Ill.....	15.00
Binghamton Railway, Binghamton, N. Y.....	40.74
Brooklyn Rapid Transit Co., Brooklyn, N. Y.....	690.89
Buffalo & Depew Railway, Buffalo, N. Y.....	14.00
Buffalo & Lackawanna Traction Co., Erie, Pa.....	8.80
Cumberland Railway, Carlisle, Pa.....	21.50
Denver & Interurban Railroad, Denver, Colo.....	51.93
Des Moines City Railway, Des Moines, Iowa.....	85.00
Evansville Railways, Evansville, Ind.....	72.43
Fort Scott Gas & Electric Co., Fort Scott, Kans.....	7.00
Hartford & Springfield Street Railway, Warehouse Point, Conn.....	48.00
Iola Electric Railroad Co., Iola, Kans.....	10.00
Lewiston, Augusta & Waterville Street Railway, Lewiston, Me.....	165.65

¹ Part of road only.

² City lines only.

	Miles of single track operated.
Paducah Traction Co., Paducah, Ky-----	19.34
Penn Yan & Lake Shore Railway Co., Penn Yan, N. Y-----	10.00
Pittsburgh Railways Co., Pittsburgh, Pa-----	605.25
Plymouth & Sandwich Street Railway, Plymouth, Mass-----	17.45
St. Paul Southern Electric Co., St. Paul, Minn-----	17.54
St. Petersburg & Gulf Railway, St. Petersburg, Fla-----	26.11
Scranton & Binghamton Railroad Co., Scranton, Pa-----	50.00
Southern Oregon Traction Co., Medford, Oreg-----	8.19
Southern Traction Co., Bowling Green, Ky-----	4.50
Springfield Electric Railway Co., Springfield, Vt-----	9.00
Sandusky, Norwalk & Mansfield Electric Railway, Cincinnati, Ohio---	29.50
Cincinnati, Lawrenceburg & Aurora Electric Street Railway, Cincinnati, Ohio-----	32.20
Cincinnati & Columbus Traction Co., Cincinnati, Ohio-----	53.00
Sunbury & Susquehanna Railway, Sunbury, Pa-----	9.00
Memphis Street Railway Co., Memphis, Tenn-----	124.00
New Orleans Railway & Light Co., New Orleans, La-----	218.15
Montgomery Light & Traction Co., Montgomery, Ala-----	38.00
Spokane & Inland Empire Railroad, Spokane, Wash-----	290.47
Rhode Island Co., Providence, R. I-----	400.04
Jackson Light & Traction Co., Jackson, Miss-----	13.50
Fort Wayne & Northern Indiana Traction Co., Fort Wayne, Ind-----	220.00
Tucson Rapid Transit Co., Tucson, Ariz-----	5.00
Ohio River Electric Railway & Power Co., Pomeroy, Ohio-----	12.70
Philadelphia Railways Co., Philadelphia, Pa-----	13.29
New York Railways Co., New York City-----	153.60
Pascagoula Street Railway & Power Co., Pascagoula, Miss-----	8.36
United Railways Co. of St. Louis, St. Louis, Mo-----	458.22
Chattanooga Railway & Light Co., Chattanooga, Tenn-----	69.31
Blue Hill Street Railway, Canton, Mass-----	19.70
Colorado Springs & Cripple Creek District Railway, Colorado Springs, Colo-----	18.50
Portsmouth, Dover & York Street Railway, Portsmouth, N. H-----	42.00
Total-----	5,912.25

MR. WARREN. If, then, I may pass over for the moment the balance sheet, I propose to take up the income accounts, Mr. Welsh, which come next in your preparation.

MR. WELSH. Yes.

Commissioner BEALL. Mr. Welsh, I notice that you have a Canadian company in here. I take it that all of these figures that you have given us are for electric railways in the United States, and not those in Canada?

MR. WELSH. That is true, with the exception of that list of receiverships. That is, our figures with reference to these income accounts have been related exclusively to the United States.

MR. WARREN. And your figures with regard to passengers?

MR. WELSH. Yes.

MR. WARREN. And all those things?

MR. WELSH. Oh, yes.

Commissioner BEALL. How much of Canadian figures are included here? Is there anything more like that one of the London & Lake Erie Railway & Transportation Co. of London, Ontario, Canada?

MR. WELSH. So far as I know, that is the only one.

Commissioner BEALL. I can not understand why you put that in, because it might raise some question.

MR. WELSH. Which company is that?

Commissioner BEALL. Why not take that out? Because you will only confuse the issues.

Mr. WELSH. Which company is that, Mr. Beall?

Commissioner BEALL. It is the third item on your second page, the London & Lake Erie Railway & Transportation Co., of London, Ontario, Canada.

Commissioner GADSDEN. That company has been dismantled and sold.

Commissioner BEALL. That is in that last statement you handed up. Why don't you just take that out?

Mr. WARREN. Yes.

Mr. WELSH. Yes.

Mr. WARREN. That is the only one, is it?

Mr. WELSH. That is the only one.

Mr. WARREN. We will have that taken out and have the figures corrected.

Mr. WELSH. Yes.

Commissioner WEHLE. Mr. Warren, after a conference with the chairman, I should like to ask you a question which should come in in connection with the presentation of Chart 145.

Mr. WARREN. That is the chart relative to power.

Commissioner WEHLE. Railway and power?

Mr. WARREN. Yes, sir.

Commissioner WEHLE. Mr. Welsh, referring to the line on Chart 145, which is entitled "subsidiary equipment," is the railway association prepared to show how that line has been made up, particularly with reference to the question as to whether or not there have been an appreciable number of instances where the power-producing function has been abandoned by the street railways and has been transferred to an independent company, which, from that time on, furnishes power back to the street-railway company, and also performs the function of furnishing power to other activities in the community?

Mr. WELSH. Well, I should say we can do it; yes, sir. We could give you a number of typical examples of that. Of course, you understand, these figures have been taken from the census report, and so far as they are concerned, we do not know how they have been compiled as to the elements and details, but we can refer to the definite census tables for that.

Commissioner WEHLE. Well, it was suggested by counsel a few moments ago, you will remember, that the reason for the increase in the amount of purchasing power that is done by the street-railway companies is the growing difficulties which have been confronting the street-railway interests. That, undoubtedly, is one of the contributing reasons, but it occurred to us that possibly the whole situation could be opened up and clarified, in order to show all the reasons, or as many of them as are really relevant in any large way.

Mr. WELSH. I had in mind adding, at that time, that the one reason given is undoubtedly the fact that the power companies are in a position to make power and sell it, and at an economical rate, and undoubtedly can, on account of the introduction of the steam turbine, which is far more efficient than the old reciprocating type of engine, generate power more economically and sell it at a rate which is advantageous to the electric railway properties. That, undoubtedly, is an element that should be taken into consideration.

Commissioner WEHLE. Could the association amplify that point by charts or by testimony, you think?

Mr. WELSH. We could, as I say, for some typical companies—as many companies as we might be able to get a report for.

Commissioner WEHLE. Would it be practicable or possible, Mr. Chairman, to ask the gentlemen to show all instances which they can easily produce where the electric-railway company has turned over the function of producing the power to other companies?

The CHAIRMAN. Yes.

Commissioner BEALL. There are some instances where, on account of water power, they can buy it cheaper than they can generate it, on account of the cost of the fuel. They might, in some of those instances where power plants are built at the mines, where enormous energies are generated and they furnish power to a lot of other companies in a large area throughout the country. Is that what you would like?

Commissioner WEHLE. That is one of the elements of the situation.

Commissioner BEALL. That is the reason why a lot of electric railways buy their power—because certain companies can generate it cheaper. They generate a larger amount than their competitors generate, through water power or otherwise.

The CHAIRMAN. We wish you would consider that and advise us as to the results.

Mr. WARREN. We certainly will make every effort to get as much information along that line as we can and file it at a later date with the commission. I know of some instances where it can be furnished very readily. I think we can get it in a number of instances.

The CHAIRMAN. You may proceed with your examination of Mr. Welsh.

Mr. WARREN. Mr. Welsh, this chart, which is marked “C-100,” indicates exactly what?

Mr. WELSH. This is a comparison of the years 1917 and 1918 of the income accounts of 345 companies referred to before. It shows—

Mr. WARREN. This is not the census companies?

Mr. WELSH. These are not the census companies. These are the entire group of companies that have responded to the association's questionnaire for this information.

Mr. WARREN. But it is the same for both years?

Mr. WELSH. The same for both years.

Mr. WARREN. 1917 and 1918?

Mr. WELSH. It shows the increase in operating expense in 1917, when it was \$361,000,000, in round numbers, to \$426,000,000 in 1918. It shows the increase in taxes. It shows the increase in deductions from income.

Mr. WARREN. Won't you give the figures as you go along?

Mr. WELSH. The taxes in 1917 were \$35,750,567, and in 1918, \$38,669,011. The gross income in 1917 was \$142,373,728, and in 1918, \$146,652,347.

Mr. WARREN. That is deduction from gross income?

Mr. WELSH. That is deduction from gross income.

The most striking feature of this chart is the comparison of the net income.

In 1917, this amounted to \$41,800,394. In 1918, the net income was \$10,712,726, or about 25.7 per cent of its former value.

Commissioner GADSDEN. Mr. Welsh, have you the 1916 figures?

Mr. WELSH. No; we have not.

Commissioner GADSDEN. Do you happen to know what they were?

Mr. WELSH. Do you mean for the same group of companies?

Commissioner GADSDEN. For all of the companies.

Mr. WELSH. Well, we do have the figures for 1916, which we will produce in subsequent charts.

Mr. WARREN. Do you happen to remember whether they show a larger net income?

Mr. WELSH. They show less.

Mr. WARREN. Less?

Mr. WELSH. They show larger; yes, sir; I believe they do.

Mr. WARREN. They show larger?

Mr. WELSH. Yes, sir; based on a per car-mile basis.

Mr. WARREN. Does the table, then, accompanying this chart, C-100, show that while the operating revenues increased, the operating expenses increased so much more that the net income almost disappeared for the 345 companies?

Mr. WELSH. That is true. It shows that whereas it was increased to about 6½ per cent in operating revenue, operating expenses, on the other hand, increased 18 per cent, and taxes increased about 8 per cent.

Commissioner GADSDEN. What proportion is the revenue of these 345 companies there of the total revenue?

Mr. WELSH. Over 80 per cent of all the companies in the country.

Another point that I would like to call your attention to is the comparison of the operating ratio in the two years. This increased from a value of 65.14 per cent in 1917 to 72.13 per cent in 1918. The operating ratio is to a large extent a measure of the prosperity or the expenses of operation of a company. It is determined by taking the ratio of the operating expense to the operating revenues, and, therefore, the higher its value, the less amount is left for return on investment.

Commissioner GADSDEN. Well, the net income shown there being 80 per cent of the total, that would indicate that the net income of the total industry for 1918 was \$12,500,000.

Mr. WARREN. For the entire industry?

Commissioner GADSDEN. Yes; if that is 80 per cent of it.

Mr. WARREN. Yes.

Mr. WELSH. Well, I do not believe you can draw that conclusion, Mr. Gadsden. We have worked out these values for 1918, on a subsequent chart.

Commissioner GADSDEN. All right.

Mr. WELSH. And show the method in that case.

Commissioner MEEKER. What is included in railway operating expenses?

Mr. WELSH. All expenses in connection with the operation of a railway system; that is to say, all cost of labor, all cost of material—anything that has to do with the operation and maintenance of the electric-railway property.

Commissioner MEEKER. Does that include any expense for renewing equipment or extensions or improvements?

Mr. WELSH. Only to this extent: It is based upon the Interstate Commerce Commission classification of accounts, and in that classification there is an item for depreciation and renewals, but, as a

matter of fact, that item is relatively small as actually expended by railway properties, and is a rather insignificant proportion of the operating expenses.

Commissioner MEEKER. Would it not be well, Mr. Chairman, to have a statement submitted giving the items included under railway operating expenses? It is a significant item, and I think it would be well to have that presented.

Commissioner BEALL. Mr. Welsh, referring to the term "operating expenses," where you replace one car that is worn out with another car because of its greater carrying capacity, that is an improvement, and is not charged in that expense of operation. Is not that the basis that you do it on?

Mr. WELSH. Yes, sir.

Commissioner BEALL. I wanted to make it clear to Dr. Meeker.

Mr. WELSH. That can be made very clear if we introduce a copy of the Interstate Commerce Commission classification of accounts, which explains that very clearly.

Mr. WARREN. Are there any more questions on that chart, No. 100?

Do you want to say anything more on that, Mr. Welsh?

Mr. WELSH. I would like to call your attention to one thing.

The operating ratio of this group of companies is almost exactly the same as the operating ratio for the entire industry, as shown by the census reports. The operating ratio is 65.14 per cent for this group.

Mr. WARREN. That is for 1917?

Mr. WELSH. That is for this group of companies.

Mr. WARREN. For 1917?

Mr. WELSH. For 1917, for the same year, while for the entire census it is 64.8 per cent.

The CHAIRMAN. Have you got the operating ratio for the last 10 years?

Mr. WELSH. I believe we have that in another chart back in 1902—the census reports.

The figures on the statement accompanying this chart (C-100) are as follows:

Statement of income accounts and operating expenses of 345 companies; income account for 12 months ending Dec. 31, 1918, compared with the 12 months ending Dec. 31, 1917.

Items follow standard classification.	12 months ended—		Increase or decrease, 1918 over 1917.	
	Dec. 31, 1918.	Dec. 31, 1917.	Amount.	Per cent.
Railway operating revenues (201).....	\$590,710,837	\$554,674,718	\$36,036,119	6.50
Railway operating expenses (213).....	426,082,146	361,315,721	64,766,425	17.93
Net operating revenue.....	164,628,691	193,358,997	128,730,306	14.86
Net revenue from auxiliary operations (202 minus 214).....	16,917,673	15,563,861	1,353,812	8.70
Taxes railway operations (215).....	38,669,011	35,750,567	2,918,444	8.16
Operating income.....	142,877,353	173,172,291	130,294,938	17.49
Nonoperating income (203 to 212).....	14,487,720	11,001,832	3,485,888	31.68
Gross income or loss.....	157,365,073	184,174,123	126,809,050	14.56
Deductions from gross income (216 to 225).....	146,652,347	142,373,728	4,278,619	3.01
Net income or loss.....	10,712,726	41,800,395	131,087,669	74.37
Total car mileage operated.....	1,654,319,023	1,722,369,093	168,050,070	3.95
Total passengers carried.....	11,969,256,764	12,187,434,043	1218,177,279	1.79
Total miles of single track.....	32,570.21	32,476.64	93.57	.29
Operating ratio..... per cent.....	72.13	65.14		

¹ Decrease.

Mr. WARREN. The next table, Mr. Welsh, I think you have no chart for, although the table is referred to as being identified as a chart, C-110, operating revenues and expenses. Have you that before you?

Mr. WELSH. We have a large chart for that.

Mr. WARREN. All right. Will you put up the large chart, then?

Mr. WELSH. This chart shows the railway operating revenue, the railway operating expenses, and by subtraction, the net operating revenue, also the taxes and the operating ratio, this question just referred to.

Mr. WARREN. The table shows the same thing in the figures, does it not?

Mr. WELSH. The table shows the same information.

Probably the most interesting feature of this chart is the net operating income. It has increased up until 1912, and from 1912 to 1917 the rate of increase fell off very markedly, and in 1918 took an actual decrease. This is seen in the table to be due to the increase in the operating expenses, as compared with the operating revenues.

Mr. WARREN. The net operating revenues means the amount of money that is left of all the money that you take in after you have paid the expense of just running the railway—operating it?

Mr. WELSH. That is it exactly.

Mr. WARREN. That has nothing to do with the return on investment or anything else, has it?

Mr. WELSH. No; it has not. In fact, taxes are deducted from the net operating income.

Mr. WARREN. And the figures show, if I understand them, that in 1912 this net operating revenue was two hundred and seventeen million-odd dollars, and that five years later it had increased to only \$228,898,000; is not that so?

Mr. WELSH. That is true.

Mr. WARREN. And for the next year the net operating revenue was actually considerably less, being only \$192,000,000 in 1918?

Mr. WELSH. That is true.

Mr. WARREN. Now, the 1912 and 1917 and other earlier figures on this table are the census figures, are they not?

Mr. WELSH. They are.

Mr. WARREN. And you got the 1918 figures how?

Mr. WELSH. They are estimated from the group of the 345 companies shown on the previous chart.

Mr. WARREN. Which represented a certain per cent of the total?

Mr. WELSH. Which represented over 80 per cent of the operating revenue.

The operating ratio is shown on this chart, and is of special interest in comparison with former years. It is seen that it had gotten up to about the 60 per cent line up to 1912. At that time it increased to about 65 per cent, and in 1918 it was increased to 72 per cent.

Mr. WARREN. Is there any figure that you would have called a normal operating ratio before the European war began?

Mr. WELSH. I think the average figure as shown by the census of 60 per cent would represent for all companies a normal figure.

Mr. WARREN. A normal average?

Mr. WELSH. A normal average.

Mr. WARREN. The operating expense does not include taxes, does it, Mr. Welsh?

Mr. WELSH. It does not.

Mr. WARREN. Is there anything else you want to say on that table?

Mr. WELSH. No; I think not.

Mr. WARREN. As a matter of fact, the taxes show an increase, although the results of operating the railroad show a very large decrease; is not that so?

Mr. WELSH. That is true.

Mr. WARREN. Have you in mind what the total taxes of the street railways would amount to per passenger; have you any figure that would give you that, or have you roughly estimated it?

Mr. WELSH. The direct taxes paid to the governmental—

Mr. WARREN. Yes; all taxes, direct and indirect.

Mr. WELSH. Well, they amount to something under one-half a cent. Is that what you mean?

Mr. WARREN. Yes.

Mr. WELSH. On the basis of a fare.

Mr. WARREN. Yes.

Mr. WELSH. They amount to something under one-half a cent.

Mr. WARREN. Well, it is pretty close to half a cent.

Mr. WELSH. It is pretty close to half a cent.

Mr. WARREN. In other words, if it were possible to relieve the street railways on the theory that the other public utilities, like waterworks, are, of all taxation, it would represent pretty close to half a cent per passenger, would it not?

Mr. WELSH. That is true.

Mr. WARREN. Are there any further questions that the commission want to ask on that table?

Commissioner GADSDEN. I would like to ask Mr. Welsh in reference to the net operating income: Do I understand that the net operating income is the amount after the payment of operating expenses and before any interest charges are paid?

Mr. WELSH. Yes, sir.

Commissioner GADSDEN. Now capitalize that at 7 per cent, and what would that indicate as the value of the industry?

Mr. WELSH. It would be about fourteen times that, would it not? It would represent something under \$3,000,000,000.

Commissioner GADSDEN. About \$2,700,000,000.

Mr. WELSH. Yes; \$2,700,000,000.

Commissioner GADSDEN. What is considered a fair estimate of the total investment, or what was the association's estimate is the total investment?

Mr. WELSH. Something in excess of \$5,000,000,000.

Commissioner GADSDEN. So that this net return in 1917 was 7 per cent on less than half of that?

Mr. WELSH. That is true.

Commissioner GADSDEN. Seven per cent on less than half of the investment.

The figures on the statement accompanying the Chart C-110 are as follows:

Operating revenues and expenses.

[Chart C-110—based on U. S. census reports.]

	1890	1902	1907	1912	1917	1918
Taxes.....	\$3,308,190	\$13,078,899	\$19,755,602	\$35,027,965	\$45,756,695	\$49,496,331
Source.....	(1)	(2)	(3)	(3)	(3)	(4)
Railway operating revenue	90,617,211	247,553,999	400,896,034	535,996,122	650,149,806	691,131,682
Source.....	(3)	(2)	(3)	(3)	(3)	(4)
Railway operating expense	62,011,185	140,123,844	245,140,379	318,700,534	421,250,838	498,516,115
Source.....	(1)	(2)	(3)	(3)	(3)	(4)
Net operating revenue.....	28,606,026	107,430,115	155,755,655	217,295,588	228,898,968	192,615,567
Source.....	(1,2)	(Base).	(Base).	(Base).	(Base).	(4)
Operating ratio.....	68.4	56.6	61.1	59.5	64.9	72.13
Source.....	(7)	(Base).	(Base).	(Base).	(Base).	(4)

¹ United States census 1902, p. 11, Table 6.

² United States census 1912, p. 186, Table 5.

³ Advance report, Table 5.

⁴ 1918 census for 345 companies, data sheet 186.

⁵ United States census 1902, p. 20, text, receipts, and expenditures.

⁶ Advance report, Table 162.

⁷ United States census 1912, p. 6, Table 1.

⁸ United States census 1912, p. 311, Table 162.

Mr. WARREN. Now, Mr. Welsh, we will pass to the next chart, No. 111.

Mr. WELSH. We have no big chart for that—just the table.

Mr. WARREN. You have no chart for this next table, have you?

Mr. WELSH. No, sir; this next table is made up of the same figures used in the former table, but upon a per car-mile basis.

Mr. WARREN. This table is marked "Chart C-111," to identify it. All right, go ahead, Mr. Welsh.

Mr. WELSH. It shows the same information exactly, except that it is put upon a per car-mile basis. The purpose of this is to take account of any increase in growth and extent of operations of the companies throughout the census periods. However, it is notable that the same trend and relationship are found between the various census periods and 1918, on a per car-mile basis, as were shown previously on a gross basis of dollars. For example, the net operating revenue was highest in 1912 at 11.3 cents per car-mile, and it fell to 10.7 cents in 1917, and to 9.39 cents in 1918.

Mr. WARREN. Mr. Welsh, that means that for each mile that a car was run, after paying the expenses, there was 9½ cents, roughly, in 1918, earned above the mere running expenses, does it not?

Mr. WELSH. That is true.

Mr. WARREN. And from that you had to pay the taxes, and whatever else came afterwards?

Mr. WELSH. Yes, sir.

Mr. WARREN. You may go right on with your tax item.

Mr. WELSH. It also shows that the taxes per car-mile have increased up to 1912.

Mr. WARREN. The taxes went right on increasing. That is the difference; is it not?

Mr. WELSH. The taxes increased right straight through, and reached their maximum point in 1918.

Mr. WARREN. So that in 1918 the taxes took twice as much out of each car-mile receipts as they did in 1902; is that right?

Mr. WELSH. Yes, sir.

Mr. WARREN. Instead of taking $1\frac{1}{2}$ cents as in 1902, they took $2\frac{2}{3}$ cents in 1918.

Mr. WELSH. Yes, sir.

Mr. WARREN. Is there anything else on that?

Commissioner MEEKER. I would like to ask whether the tax for street railways increased at a greater ratio than for other industries?

Mr. WARREN. They are not tied down to quite such a definite income as in the street-railway business.

Have you anything else on that, Mr. Welsh?

Mr. WELSH. No; that is all.

The figures on the table accompanying the Chart C-111 are as follows:

Revenues and expenses of electric railways.

(Based on United States census reports.)

	Cents per car mile.				
	1902	1907	1912	1917	1918
Railway operating revenue.....	21.63	24.78	27.89	30.39 ¹	33.09
Source.....	(1)	(1 ²)	(1 ³)	(2 ⁴)	(4)
Railway operating expense.....	12.25	15.15	18.51	19.69	24.28
Source.....	(1 ⁵)	(1 ⁶)	(1 ⁶)	(3 ⁶)	(4)
Net operating revenue.....	9.38	9.63	11.30	10.70	9.39
Source.....	(1 ⁵)	(1 ⁶ , 6)	(1 ⁶ , 5)	(2 ⁴ , 5)	(4)
Taxes.....	1.20	1.22	1.82	2.14	2.41
Source.....	(1 ⁵)	(1 ⁶)	(1 ⁶)	(2 ⁴)	(4)

¹ United States census 1912, p. 186, Table 5.

² Advance report, Table 5.

³ United States census 1912, p. 311, Table 162.

⁴ Estimate of 1918 census for 345 companies, data sheet 186.

⁵ Advance report, Table 162.

United States census typed advance summary released Apr. 21, 1919.

Mr. WARREN. Have you a large chart on this next one, Chart No. 120?

Mr. WELSH. Yes.

Mr. WARREN. We will pass, then, please, to Chart No. 120.

The CHAIRMAN. Have you available the per cent which the taxes bore to the total operating cost of the railroads?

Mr. WELSH. We will introduce that later; yes, sir.

Mr. WARREN. This chart, Mr. Welsh, indicates what?

Mr. WELSH. Chart No. 120 is based upon the reports of the number of companies who sent in their financial statistics to the American Electric Railway Association, and it has been prepared for four years, from 1916 to 1919, inclusive. It is on a car-mile basis, and covers the principal items of income accounts, such as operating revenue, operating expenses, net operating revenue, and operating ratio. It is interesting because it shows the trend of all these items for this recent period, and we have been able to prepare these figures for 1919 by estimating the amounts on the basis of the first four months of the year. For example, it shows that the net operating revenue has declined consistently from 1916, when it amounted to 11.77 cents per car-mile, to 1919, when it was 8.87 cents per car-mile. I believe this covers Mr. Gadsden's question. The operating ratio, on

the other hand, is increased from a value of 60 in 1916 to a value of 76.43 in 1919, showing that the same situation for the year 1918 is tending into 1919.

Mr. WARREN. That operating ratio, Mr. Welsh, stated in dollars, would amount to this, would it? That where, out of every hundred dollars in 1916 which you took in, \$60 was used to pay merely running expenses of the road; in 1919, you estimate practically \$76 would be used?

Mr. WELSH. Yes, sir.

Mr. WARREN. In that way?

Mr. WELSH. Yes, sir.

Mr. WARREN. Out of every \$100?

Mr. WELSH. Yes, sir.

Mr. WARREN. So that out of every \$100 there would be \$16 less available for other purposes, like taxes, interest, etc.?

Mr. WELSH. Yes, sir.

Commissioner WEHLE. What standards of accounting have been used in reaching the figures which you have been giving us here in the last two charts, Mr. Welsh?

Mr. WELSH. The Interstate Commerce Commission classification of accounts, which was adopted by the American Electric Railway Association in October, 1914, and has been in use since that time.

Commissioner WEHLE. Has there been a special regulation with reference to this method of accounting issued by the Interstate Commerce Commission for electric railways?

Mr. WELSH. There has been; yes, sir.

Commissioner WEHLE. Will you file that with the record?

Mr. WELSH. We will do so; yes, sir.

Mr. WARREN. As a matter of fact, Mr. Welsh, do you happen to know whether most of the supervisory commissions of the various States have also adopted that system?

Mr. WELSH. I think they have to a large extent.

Mr. WARREN. I know that they have in Massachusetts.

Mr. WELSH. Yes.

Mr. WARREN. And I suppose others.

Mr. WELSH. They have. Some of the States do not, however.

Mr. WARREN. Yes. Is there anything else on that chart?

Mr. WELSH. No, sir; I think not. I think that is all.

The figures on the statement accompanying Chart C-120, are as follows:

Income accounts per car-mile of electric railways.

(Chart C-120—Based on average of monthly reports to American Electric Railway Association.)

	1916	1917	1918	1919, January to April.
Operating revenue.....	29.43	30.87	34.00	37.63
Operating expenses.....	17.66	20.06	24.50	28.76
Net operating revenue.....	11.77	10.81	9.50	8.87
Taxes.....			2.45	2.49
Operating income.....			7.05	6.38
Operating ratio.....	60.01	64.98	72.08	76.43

1919 estimated on basis of four months.

Mr. WARREN. The next exhibit that we want to put in is the March number of a magazine called Aera, which is published by the American Electric Railway Association, and gets its name from the four initials of the four words in the name. We will put that in for the figures which appear on pages 808 and 809.

The figures referred to are as follows:

TABLE I.—Comparison of revenues and expenses of electric railways for 12 months, January to December, 1918 and 1917.

(Compiled from monthly returns of electric railways to the American Electric Railway Association.)

Account.	United States.				Eastern district.			
	Amount, January- December, 1918.	Per mile of line.			Amount, January- December, 1918.	Per mile of line.		
		1918	1917	In- crease over 1917.		1918	1917	In- crease over 1917.
Operating revenues.....	\$111,688,563	\$21,870	\$20,545	6.45	\$54,554,582	\$19,222	\$17,955	7.03
Operating expenses.....	81,192,846	15,889	13,728	15.74	39,793,194	14,084	12,155	15.87
Net earnings.....	30,495,317	5,981	6,817	12.26	14,581,388	5,138	5,800	11.41
Operating ratio, per cent:								
1918.....		72.65				73.27		
1917.....		66.82				67.70		
Average number of miles of line represented:								
1918.....		5,107				2,838		
1917.....		5,107				2,838		
COMPANIES REPORTING TAXES.								
Operating revenues.....	\$100,014,301	\$26,325	\$24,741	6.40	\$49,059,914	\$24,033	\$22,460	7.00
Operating expenses.....	73,074,000	19,234	16,827	14.31	36,128,085	17,698	15,611	13.37
Net earnings.....	26,940,301	7,091	7,914	10.40	12,931,829	6,335	6,849	7.50
Taxes.....	6,761,245	1,780	1,765	.85	3,169,712	1,553	1,596	2.69
Operating income.....	20,179,056	5,311	6,134	13.42	9,762,117	4,782	5,253	8.97
Operating ratio, per cent:								
1918.....		73.06				73.64		
1917.....		68.01				69.50		
Average number of miles of line represented:								
1918.....		3,799				2,041		
1917.....		3,800				2,042		

¹ Indicates decrease.

TABLE I.—Comparison of revenues and expenses of electric railways for 12 months, January to December, 1918 and 1917—Continued.

Account.	Southern district.				Western district.			
	Amount, January- December, 1918.	Per mile of line.			Amount, January- December, 1918.	Per mile of line.		
		1918	1917	In- crease over 1917.		1918	1917	In- crease over 1917.
Operating revenues.....	\$11,407,529	\$15,343	\$14,136	Per ct. 8.54	\$45,726,462	\$29,977	\$28,486	Per ct. 5.23
Operating expenses.....	7,665,957	10,311	8,473	21.69	33,553,695	21,997	19,215	14.48
Net earnings.....	3,741,572	5,032	5,663	11.14	12,172,767	7,980	9,271	13.92
Operating ratio, per cent:								
1918.....		67.20				73.38		
1917.....		59.94				67.45		
Average number of miles of line represented:								
1918.....		743				1,525		
1917.....		743				1,525		
COMPANIES REPORTING TAXES.								
Operating revenues.....	\$5,346,149	\$20,354	\$18,401	10.61	\$45,608,248	\$30,505	\$28,970	5.30
Operating expenses.....	3,536,456	13,464	10,917	23.33	33,409,459	22,346	19,525	14.44
Net earnings.....	1,809,693	6,890	7,484	7.94	12,198,789	8,159	9,445	13.61
Taxes.....	414,567	1,578	1,470	7.34	3,177,566	2,125	2,048	3.76
Operating income.....	1,395,126	5,312	6,014	11.67	9,021,223	6,034	7,397	18.43
Operating ratio, per cent:								
1918.....		66.15				73.25		
1917.....		59.33				67.39		
Average number of miles of line represented:								
1918.....		263				1,495		
1917.....		263				1,495		

↑ Indicates decrease.

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TABLE II.—Comparison of revenues and expenses of electric railways, December, 1918 and 1917.

(Compiled from monthly returns of electric railways to the American Electric Railway Association.)

Account.	United States.				Eastern district.			
	Amount, December, 1918.	Per mile of line.			Amount, December, 1918.	Per mile of line.		
		1918	1917	In- crease over 1917.		1918	1917	In- crease over, 1917.
Operating revenues.....	\$8,903,746	\$1,825	\$1,695	Per ct. 7.67	\$4,805,173	\$1,693	\$1,538	Per ct. 10.08
Operating expenses.....	7,362,468	1,509	1,231	22.58	3,797,060	1,338	1,235	8.34
Net earnings.....	1,541,278	316	464	31.90	1,008,113	355	303	17.16
Operating ratio, per cent:								
1918.....		82.68				79.03		
1917.....		72.63				80.30		
Average number of miles of line represented:								
1918.....		4,878				2,839		
1917.....		4,878				2,839		
COMPANIES REPORTING TAXES. *								
Operating revenues.....	\$7,707,574	\$2,159	\$2,007	7.57	\$4,330,134	\$2,121	\$1,922	10.35
Operating expenses.....	6,472,219	1,813	1,487	21.92	3,437,317	1,684	1,576	6.85
Net earnings.....	1,235,355	346	520	33.46	892,817	437	346	26.30
Taxes.....	486,798	136	202	32.67	295,443	145	179	18.99
Operating income.....	748,557	210	318	33.96	597,374	292	167	74.85
Operating ratio, per cent:								
1918.....		83.97				79.40		
1917.....		74.00				82.00		
Average number of miles of line represented:								
1918.....		3,569				2,041		
1917.....		3,570				2,042		

* Indicates decrease.

TABLE II.—Comparison of revenues and expenses of electric railways, December, 1918 and 1917—Continued.

Account.	Southern district.				Western district.			
	Amount, December, 1918.	Per mile of line.			Amount, December, 1918.	Per mile of line.		
		1918	1917	In- crease over 1917.		1918	1917	In- crease over 1917.
Operating revenues.....	\$1,229,030	\$1,653	\$1,470	Per ct. 12.45	\$2,869,543	\$2,215	\$2,167	Per ct. 2.22
Operating expenses.....	881,531	1,186	886	33.86	2,683,877	2,071	1,419	45.95
Net earnings.....	347,499	467	584	120.03	185,666	144	748	180.75
Operating ratio, per cent:								
1918.....		71.75				93.50		
1917.....		60.27				65.48		
Average number of miles of line represented:								
1918.....		743				1,296		
1917.....		743				1,296		
COMPANIES REPORTING TAXES.								
Operating revenues.....	\$517,803	\$1,971	\$1,688	16.77	\$2,859,637	\$2,260	\$2,211	2.22
Operating expenses.....	363,409	1,384	992	39.52	2,671,493	2,111	1,445	46.09
Net earnings.....	154,394	587	696	15.66	188,144	149	766	180.55
Taxes.....	26,527	101	122	17.21	164,828	130	256	149.22
Operating income.....	127,867	486	574	15.33	23,316	19	510	162.75
Operating ratio, per cent:								
1918.....		70.22				93.41		
1917.....		58.77				65.36		
Average number of miles of line represented:								
1918.....		263				1,265		
1917.....		263				1,265		

¹ Indicates decrease.

Mr. WARREN. What do those figures show, Mr. Welsh? I do not mean the results, but, first, where do they come from and where do you want those put in?

Mr. WELSH. The table shown in Aera is published each month covering all the electric-railway properties who report to the association, and this exhibit is introduced to show the character of these reports or a summary of these reports that are prepared each month from the various electric railways of the country. This table is for the years 1918 and 1917 only.

Mr. WARREN. For those companies that report to the association?

Mr. WELSH. For those companies that report to the association; yes, sir.

Mr. WARREN. And they show the actual figures, do they?

Mr. WELSH. Yes, sir.

Mr. WARREN. They are not on a per car-mile basis, but are the total?

Mr. WELSH. That is true.

Mr. WARREN. Is there anything else that you want to say about that?

Mr. WELSH. I think that is all.

Mr. WARREN. It comes along following the last chart that you put in, 120, which was the per car-mile basis, was it not?

Mr. WELSH. Yes.

Mr. WARREN. I want to say, Mr. Chairman, at some time, and perhaps I might say at this point on behalf of the association that as soon as your commission was appointed the association began actively to put its whole force to work to get together as much data as possible to submit to the commission. It has been working almost exclusively on that undertaking since your appointment. But the commission will realize that in corresponding with the 345 street-railway companies a great deal of time is lost because of the tardy responses of some of the companies, and I can testify from personal observation that I have had since a few days ago in this matter that the organization has been working night and day and was working last night until 12 o'clock in an endeavor to present information which might be of use and value to the commission in its work. That is the reason we are compelled to put this copy of Aera in instead of abstracting the figures. It is due to a lack of clerical assistance necessary to transcribe it.

The CHAIRMAN. Have you reached a good stopping point here?

Mr. WARREN. Yes, sir.

The CHAIRMAN. Then we will adjourn until 2 o'clock.

(Whereupon, at 12.50 o'clock p. m., a recess was taken to 2 o'clock p. m.)

AFTER RECESS.

JAMES W. WELSH—Resumed.

Mr. WARREN. Mr. Chairman, we have not copies of this chart on a small scale, but we have the statements which accompany the chart—

Mr. WELSH. I have a few copies here.

Mr. WARREN. Now, Mr. Welsh, what does this chart illustrate?

Mr. WELSH. The purpose of this chart is to show the composition of operating expenses; the total operating expenses for each of the census years and for 1918 has been plotted, and in addition to that we have shown the segregation between the various operating departments.

The most notable element in the operating expense is the item of conducting transportation. It is not only the largest item but the one in which there has been a proportionate increase during the census years and also in the year 1918. The principal element in that is trainmen's wages. The next most important element is the cost of power, and that also has had a proportionate increase.

Mr. WARREN. That payment in wages is what you call conducting transportation?

Mr. WELSH. The principal item in conducting transportation is trainmen's wages.

Mr. WARREN. And the total item of conducting transportation, according to your table, is \$204,989,000, and power is \$86,000,000?

Mr. WELSH. Yes, sir. The increase in the cost of power is largely due to the increase in the cost of coal as well as increased cost of materials and labor.

Mr. WARREN. The way and structures. What does that mean?

Mr. WELSH. That includes cost of maintenance of the roadway, the cost of the track and overhead line constructions.

Mr. WARREN. Keeping it in proper condition to run your cars?

Mr. WELSH. Exactly.

Mr. WARREN. And that is all it means, is it not?

Mr. WELSH. Yes, sir. The item for equipment covers the rolling stock, the cars as well as the shop expense in maintaining the equipment.

Mr. WARREN. That is keeping the cars in condition to run?

Mr. WELSH. Yes, sir.

Mr. WARREN. It does not include new cars, does it?

Mr. WELSH. It does not.

Mr. WARREN. And traffic and miscellaneous.

Mr. WELSH. Under that are included general expenses such as office expense and the expense of injuries and damages and other items of a general nature.

Mr. WARREN. And the total of that operating expense as shown here for 1918 is how much?

Mr. WELSH. \$498,000,000, in round numbers.

Mr. WARREN. And the year before, it was how much?

Mr. WELSH. \$421,000,000.

Mr. WARREN. Now, were the companies operating substantially more mileage or more tracks in 1918 than in 1917?

Mr. WELSH. As a matter of fact, they were operating a less car-mileage in 1918 than in 1917.

Mr. WARREN. By car-mileage you mean they ran the passenger cars a smaller number of miles in 1918 than in 1917?

Mr. WELSH. Yes, sir.

Mr. WARREN. And notwithstanding that, it cost them something like \$77,000,000 more to operate their roads in 1918—is that right?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, the sum of those operating expenses, as you have called them, has to come out of the total receipts first, does it not?

Mr. WELSH. Yes.

Mr. WARREN. And you stated before the recess that the ratio, as you call it—the operating ratio—was about 76 per cent for this current year?

Mr. WELSH. Yes, sir; 76 per cent for the year 1919, based upon the first four months.

Mr. WARREN. That means that \$76 out of every \$100 goes to this operating expense?

Mr. WELSH. Yes.

Mr. WARREN. Does that operating expense include the taxes?

Mr. WELSH. It does not.

Mr. WARREN. About how much is that?

Mr. WELSH. The direct taxes, exclusive of indirect taxes, amount to about 7 per cent of the operating revenues.

Mr. WARREN. That would have to be added to the 76 per cent of operating expenses, would it not?

Mr. WELSH. Yes, sir.

Mr. WARREN. That would make about 83 per cent?

Mr. WELSH. Yes.

Mr. WARREN. Or \$83 out of every \$100 for operating expense and taxes?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, about depreciation, Mr. Welsh: Does this operating expense which takes \$76 out of every \$100 include a depreciation reserve to maintain the property at near its original value?

Mr. WELSH. As a matter of practice it does not.

Mr. WARREN. And if such a reserve were set up, would it have to be added to the 76 per cent of operation and the 7 per cent more taxes, or the total of 83 per cent, and be added to the 83 per cent?

Mr. WELSH. Yes; it should.

Mr. WARREN. While, of course, we all realize that there is no agreement on what it ought to be, what should you say the best judgment was as to the two limits, the smaller and higher limit for depreciation?

Mr. WELSH. In percentage of operating revenues?

Mr. WARREN. In percentage of operating revenues.

Mr. WELSH. Well, in the neighborhood of from 3 per cent to 7 or 8 per cent possibly.

Mr. WARREN. And why has not that been set up as a reserve by these properties?

Mr. WELSH. I suppose they have not had the money to do it.

Mr. WARREN. If it were set up it would raise these prior requirements on the income from 83 per cent up to 86 per cent, or if you took the maximum of 7 per cent depreciation, it would carry it up to 91 per cent, would it not?

Mr. WELSH. Ninety per cent.

Mr. WARREN. Ninety per cent?

Mr. WELSH. Yes, sir.

Mr. WARREN. So that before there is anything available to pay interest on funded debt on the bonds or any dividends on the stock, if the company is properly operated and pays its taxes and takes care of its depreciation, approximately 90 per cent, somewhere from \$86 to \$90 out of every \$100 will be expended or laid aside?

Mr. WELSH. That is true on the basis of this year's figures.

Commissioner MEEKER. You spoke some time ago of the street-railway accounts being in accordance with the accounting system recommended by the Interstate Commerce Commission. In the accounts which have been recommended by the Interstate Commerce Commission a percentage is set aside for depreciation.

Mr. WELSH. That is true, but not what is known as a depreciation reserve.

Mr. WARREN. No percentage, I think. There is a provision for setting it aside, but unless very recently—and I do not think it has happened—the Interstate Commerce Commission has not indicated to the companies what that percentage should be.

Mr. WELSH. I misunderstood your question.

Commissioner MEEKER. They simply said it should be set aside?

Mr. WARREN. Yes.

Commissioner MEEKER. As a matter of practice the street-railway companies have not set aside anything for depreciation?

Mr. WELSH. That is right.

Mr. WARREN. Or if they have, as regards equipment, many of them make a nominal reserve, do they not, Mr. Welsh?

Mr. WELSH. In some cases, yes.

Mr. WARREN. On equipment?

Mr. WELSH. Yes.

Mr. WARREN. We do in Massachusetts I know, but it is utterly inadequate. I know some companies that set up a reserve of 1 per cent of the cost of the equipment per annum, which would assume an equipment life of 100 years. I wish that they did last 100 years, but they do not.

Now, is there anything else on that chart that I have overlooked?

Mr. WELSH. I think not.

The figures in the tables accompanying Chart C-155 are as follows:

Estimate of railway operating expenses by departments.

(To accompany Chart C-155.)

Expense accounts.	Year ending Dec. 31, 1918 (115 com- panies).	Per cent of total.	Estimate of census for year 1918.
Way and structures.....	\$19,911,322	12.80	\$63,810,062
Equipment.....	21,576,262	13.87	69,144,186
Power.....	26,842,149	17.26	86,043,881
Conducting transportation.....	63,947,529	41.12	204,989,828
Traffic.....	629,080	0.40	1,994,064
General and miscellaneous.....	22,607,326	14.54	72,534,094
Operating expenses.....	155,513,668	99.99	498,516,115

Operating expenses by accounts for United States street and electric railways.

(Chart C-155—Financial and traffic data from U. S. census reports.)

	Census of—				1918 (estimated).
	1902	1907	1912	1917	
Conducting transportation.....	\$60,972,739	\$97,122,681	\$129,204,515	\$174,972,645	\$204,989,828
Power.....	23,062,328	43,970,669	53,598,922	76,958,461	86,043,881
Way and structures.....	13,600,236	28,520,925	44,270,582	55,470,419	63,810,062
Equipment.....	16,676,532	31,485,810	38,717,202	48,981,554	69,144,186
Traffic and miscellaneous.....	25,812,009	44,038,294	52,909,313	64,867,759	74,528,158
Total.....	140,123,844	245,140,379	318,700,534	421,250,838	498,516,115
Items 1 to 5, inclusive.....	140,123,844	245,140,379	318,700,534	421,250,838	498,516,115
Items 1 to 4, inclusive.....	79,151,105	148,017,698	189,496,019	246,278,193	293,526,287
Items 1 to 3, inclusive.....	56,088,777	104,045,029	135,897,037	169,319,732	207,482,406
Items 1 to 2, inclusive.....	42,488,541	75,524,104	91,626,515	113,849,313	143,672,344
Item 1.....	25,812,009	44,038,294	52,909,313	64,867,759	74,528,158

Cumulative figures (from above data) for plotting curves.

NOTE.—Figures taken from 1917 advance copies U. S. Government census by accounts for years 1917, 1912, and 1907 and 1912 census, Table 162, p. 311, for year 1902. Figures for 1918 estimated by American Electric Railway Association from reports from 115 companies.

Mr. WARREN. You have spoken of the element of increased wages in conducting transportation, have you not, as largely accounting for the increase in that item?

Mr. WELSH. Yes, sir.

Mr. WARREN. Would that also be true of the major item of ways and structures?

Mr. WELSH. Wages enter into all of the accounts and it would be true in practically every case.

Mr. WARREN. In conducting transportation, it would be principally the conductors and motormen, the men who operate the cars, would it not?

Mr. WELSH. Yes, sir.

Mr. WARREN. In ways and structures, it would be the laboring men who work on the track and overhead wire men, the electricians?

Mr. WELSH. Yes, sir.

Mr. WARREN. And in the equipment, it would be the mechanical men in the repair shops?

Mr. WELSH. Yes, sir.

Mr. WARREN. Where do the men who clean the cars and do the car-barn work appear, under what head?

Mr. WELSH. Under the item of conducting transportation.

Mr. WARREN. And in power, again, wages enter there; do they not?

Mr. WELSH. Yes, sir.

Mr. WARREN. Do you happen to know whether, as a general thing, when there is a wage adjustment made with the men or with the union representing the men on unionized roads, the settlement usually applies to all classes of labor?

Mr. WELSH. In most cases it follows as a consequence of the decision. While the agreement may apply especially to the trainmen, in almost every case it applies to the rest of the employees eventually, if not immediately.

Mr. WARREN. In cases where the settlement is made with the Amalgamated Association, does not the Amalgamated Association include in its membership all the different classes of labor on street railways?

Mr. WELSH. It does, but all the various classes are not members in every case. I think they have the opportunity for membership but—

Mr. WARREN. Are you familiar with the action of the War Labor Board in raising wages?

Mr. WELSH. Yes, sir.

Mr. WARREN. They usually applied it to all classes, did they not? They raised all classes?

Mr. WELSH. They did; yes, sir.

Mr. WARREN. Not simply the trainmen.

Mr. WELSH. Yes, sir.

Commissioner MEEKER. Would it be possible to submit a detailed account separating labor costs from other costs in conducting transportation, maintenance of way and structures?

Mr. WARREN. I think we have that. It is the very next chart.

Mr. WELSH. It is the very next chart.

Mr. WARREN. If there are no questions on this chart we will pass to the next one.

Commissioner WEHLE. May I ask if you have a separate statement showing to what extent the cost of actual power purchased from other companies enters into the item of power as shown on this chart?

Mr. WELSH. It does not enter at all into that item.

Mr. WARREN. Yes; it does.

Mr. WELSH. I beg pardon; it does enter into it. We can show that.

Commissioner WEHLE. Would some chart show that?

Mr. WELSH. We do not have that chart; no; but we can easily get that.

Mr. WARREN. We can prepare a statement if you would like it.

Commissioner WEHLE. Would it be interesting and useful, Mr. Warren?

Mr. WARREN. Yes; I think it would. There is something to be said about that, and it is something which is to be said about every one of these items, and which I think the commission should have in mind. You take in the case of purchased power—a company may have made a contract for three years for power at a certain rate. It may still this year be getting power at that rate. Next year the contract may expire, and there will be an immediate large increase in the cost of power, and the same increase for labor. Now, for example, in the labor situation, the maximum wage up to a few weeks ago was that fixed by the War Labor Board of 48 cents, was it not? That is the highest I remember; 48 cents for cities of the first class. Within two or three weeks, as the result of the strike in Detroit, the Detroit scale has gone to 60 cents an hour. Following that, Cleveland has gone to 60 cents an hour, and in Chicago, I learned at lunch to-day, that the employees had gone on a strike for—85 cents, I think, was their demand—85 cents an hour.

In Boston, where I happen to come from, their case is now pending before the War Labor Board, and they have asked—I have forgotten, but it is something well over 60 cents, and also for an 8-hour day, 8 hours platform work instead of 9, as they have hitherto performed; and they are threatening to strike, I understand, because the decision is not forthcoming from the War Labor Board as promptly as they want it.

Now, all these figures which we are putting in are figures based on past experience and past operations, are they not, Mr. Welsh?

Mr. WELSH. Yes, sir.

Mr. WARREN. And the result of these various changes which are imminent, of course, is going to make the showing infinitely more serious than it is to-day.

You spoke of the power. I have in mind one company in Massachusetts which had a five-year power contract which ran until the 1st of July a year ago. Now, during the first years of the European war and the first year of the increased cost of coal, in so far as that company was buying its power—and it bought two-thirds of it—its power cost did not reflect the changed conditions at all. The minute the 1st of July came, however, the price of its power was increased by that power company to a point where the cost of its power was \$150,000 more per year from the 1st of July than it had been for the year before, and, of course, that is happening all along the line with power companies.

Now, Mr. Welsh, will you pass to the next chart? That chart was C-155. The next chart is marked for identification, "C-134." Now, Mr. Welsh, this chart shows the cost of labor.

Mr. WELSH. The purpose of this chart is to show the relationship between the cost of labor as represented by wages and salaries to the railway operating expense. The increase in both the total expense and in the cost of labor for each of the census years is indicated and the sharp increase in 1918 is very noticeable. The approximately level line representing the percentage of the cost of labor to the total railway operating expense is the evidence showing how the total operating expense has been the result of the cost of labor. In other

words, the total expense has increased at a uniform rate with the cost of labor.

Mr. WARREN. Now, the accompanying statement to the chart shows, does it not, the salaries and wages for 1912, as well as other census years and for 1917. Will you state what they were in 1912 and what they were in 1917?

Mr. WELSH. The cost of labor amounted to \$200,000,000 in round numbers in 1912 out of a total of \$318,000,000 railway operating expense, or 63 per cent of the total. In 1917 the cost of labor was \$267,000,000 out of \$421,000,000 total, or 63.4 per cent.

Mr. WARREN. That means, does it, that of all the operating expenses almost two-thirds was to pay salaries and wages?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, your table also shows the year 1918, does it not?

Mr. WELSH. It does.

Mr. WARREN. And that was made up from your returns from the——

Mr. WELSH. From the member companies.

Mr. WARREN. From the 345 companies, and then estimated for the remainder?

Mr. WELSH. Yes.

Mr. WARREN. That shows a slightly smaller proportion of the total operating expense going for wages and salaries, although as a matter of fact a good deal more money went to wages and salaries. How do you account for that?

Mr. WELSH. There is a falling off of about half a per cent in the cost of labor as compared with the total cost of operation. However, it must be borne in mind that the service performed as represented by the car-mile operated in 1918 fell off somewhat as compared with 1917, and this would be reflected primarily in the item of labor.

Mr. WARREN. And how would the cost of materials affect it?

Mr. WELSH. There has probably been a slightly greater increase in the cost of materials than in the cost of labor. In fact there has been a larger increase in the cost of materials than in the cost of labor.

Mr. WARREN. So that would change the relationship?

Mr. WELSH. That would change the relationship.

Mr. WARREN. Another thing about the cost of wages last year, while there were very great increases in wages last year, did they apply to the whole year?

Mr. WELSH. No. That should be borne in mind, because the decisions of the War Labor Board occurred at various intervals throughout the year, and therefore the total figures for the year do not represent the amounts that would have been expended had the rates been in effect for the entire year.

Mr. WARREN. Roughly, they represent less than half the year, do they not?

Mr. WELSH. About half, or less than half.

Mr. WARREN. And, as far as you know, was the highest rate per hour in wages entering into these figures, the 48 cents which I mentioned as the War Labor Board's award?

Mr. WELSH. That is true, except, I believe, in one western company that pays 50 cents.

Mr. WARREN. Two cents an hour more?

Mr. WELSH. I think an interurban western company; yes, sir.

Commissioner MEEKER. Would it not be possible to give us some figures as applying to 1919, showing the labor costs and the percentage of total operating expenses? That would bring it down more to date. It would bring before us more accurately the problem that we are now facing.

Mr. WELSH. Our next chart will do that.

Mr. WARREN. The next chart will do that?

Mr. WELSH. That is, in rates per hour.

Mr. WARREN. Is there anything further on this chart that you want to call to the attention of the commission?

Mr. WELSH. I think not; no, sir.

Cost of labor—Ratio of salaries and wages to railway operating expense.

(Chart No. 134.—Based on United States census reports.)

	Railway operating expense.	Salaries and wages.	Per cent salaries and wages is of railway operating expense.
1918.....	\$498,516,115	\$313,748,577	62.9
1917.....	421,250,838	267,240,362	63.4
1912.....	318,700,534	200,890,930	63.0
1907.....	245,140,379	150,991,099	61.6
1902.....	140,123,844	88,210,165	63.0

Source of information: Tables 5 and 162 of the 1917 advance reports and the 1912 book of the Census Bureau.

Mr. WARREN. Now, Mr. Welsh, this chart, which is marked "C-133," indicates what as regards wages?

Mr. WELSH. This chart is based upon the average rate per hour paid by companies, somewhat over 60 companies having over 100 miles of single track each. It is on a percentage basis and 1906 is taken as 100 per cent and the percentage increase over 1906 is shown for each year up to the present time.

Mr. WARREN. Is that also shown in the table accompanying the chart?

Mr. WELSH. The table accompanying the chart shows in addition to the percentage the average rates per hour in cents. The 100 per cent shown for the year 1906 in the table is taken arbitrarily as the basis. This chart shows that, comparing 1919 with 1906, there has been an increase in wage rates of about 93 per cent, the most rapid increase having occurred from 1918 to 1919.

Mr. WARREN. Then follows a summary of the awards of the National War Labor Board.

Mr. WELSH. That is, a part of this exhibit and summary as well as the individual have been prepared. This summary shows the number of awards for each of the maximum rates.

Mr. WARREN. It shows the date of the award, the scale granted, the previous scale, and the per cent of increase; does it not?

Mr. WELSH. In the detailed statement; yes, sir.

Mr. WARREN. For each company?

Mr. WELSH. Yes.

Mr. WARREN. I think the commission will find that fully bears out Mr. Welsh's statement that the increased wages are reflected in last year's statements for only a relatively small part of the year.

Have you anything else on that, Mr. Welsh?

Mr. WELSH. No, sir.

The figures in the tables accompanying Chart C-133 are as follows:

Summary of awards affecting trainmen granted by War Labor Board.

Maximum rate per hour (cents).	Number of increases in wage rates awarded.	Maximum rate per hour (cents).	Number of increases in wage rates awarded.
40.....	7	46.....	3
42.....	18	46½.....	1
42½.....	1	47.....	3
43.....	4	48.....	13
44.....	1	50.....	5
44½.....	1	54.....	1
45.....	26	65.....	1

Total number of awards, 66.

NOTE.—In some of the above cases several rates were made in one award.

Maximum increase, 71.4 per cent; minimum increase, 7.5 per cent.

Trainmen's wages.

(Chart C-133—Based on wages paid by approximately 60 companies having over 100 mi'es of track each. Values given show per cent increase in wages for each year over wages paid in 1906, as reported by companies to American Electric Railway Association.)

Year.	Rate per hour.	Per cent increase.	Year.	Rate per hour.	Per cent increase.
	<i>Cents.</i>			<i>Cents.</i>	
1906.....	23.03	100.00	1913.....	27.74	120.45
1907.....	24.11	104.69	1914.....	28.14	122.23
1908.....	24.75	107.47	1915.....	28.62	124.27
1909.....	24.57	106.69	1916.....	29.25	127.01
1910.....	25.85	112.24	1917.....	31.57	137.08
1911.....	26.10	133.33	1918.....	33.92	147.29
1912.....	26.89	116.76	1919.....	44.43	192.92

NOTE.—The rate per hour is the average rate of all companies reporting, based on that paid to men oldest in the service.

Summary of awards of National War Labor Board.

Name of company.	Date of award.	Scale granted.	Previous scale.	Per cent increase.
		<i>Cents.</i>	<i>Cents.</i>	
Atlanta Northern Ry. Co., Atlanta, Ga.....	Dec. 5, 1918	40		
Auburn & Syracuse Electric R. R. Co., Auburn, N. Y.....	Nov. 21, 1918			
City lines.....		42	31	35.5
Interurban lines.....		44	33	33.3
Express and freight service.....		47	35½	
Bay State Street Ry. Co., Boston, Mass.....	Dec. 4, 1918	45	40½	11.1
Boston Elevated Ry. Co., Boston, Mass.....	Oct. 2, 1918			
Surface lines, motormen and conductors.....		48	37½	28.0
Rapid Transit lines—				
Motormen.....		50	39½	26.6
Conductors.....		44½	34	30.9
Brakemen.....		42½	30½	40.5
Boston & Worcester Street Ry. Co., Boston, Mass.....	Jan. 15, 1919	47	39½	18.5
Buffalo & Lake Erie Traction Co., Buffalo, N. Y.....	Dec. 5, 1918	45	33	36.4
Butte Electric Ry. Co., Butte, Mont.....	Nov. 21, 1918	65	53½	22.4
Charleston Consolidated Railway & Lighting Co., Charleston, S. C.....	Nov. 20, 1918	40	28	42.9

Summary of awards of National War Labor Board--Continued.

Name of company.	Date of award.	Scale granted.	Previous scale.	Percent increase.
		<i>Cents.</i>	<i>Cents.</i>	
Chicago elevated railways, Chicago, Ill.....	July 31, 1918			
Motormen, regular.....		50	41	22.0
Motormen, extra.....		46	39	
Conductors, regular.....		43	34	26.5
Conductors, extra.....		40	34	
Guards, regular.....		40	31	29.0
Guards, extra.....		39	31	
East St. Louis, Columbia & Waterloo Ry. Co., East St. Louis, Ill.....	Nov. 21, 1918	48		
East St. Louis lines (East St. Louis & Suburban Ry., Alton, Granite & St. Louis Traction Co., and East St. Louis Ry.), East St. Louis and Alton, Ill.....	July 31, 1918			
City lines.....		45	31	45.2
Interurban lines.....		47	33	42.4
Empire State Railroad Corporation, Syracuse, N. Y.....	Nov. 21, 1918			
City lines.....		42	31½	33.3
Interurban lines.....		45	33½	34.3
Evanston Ry. Co., Evanston, Ill.....	July 31, 1918	45	39	15.4
Galesburg Railway, Light & Power Co., Galesburg, Ill.....	do.	42	25	61.5
Georgia Railway & Power Co., Atlanta, Ga.....	Dec. 5, 1918			
City lines.....		40	32	25.0
Interurban lines.....		40	34	17.6
International Ry. Co., Buffalo, N. Y.....	July 31, 1918	48	34	41.2
Freight service—				
Engineers.....		50	36	
Conductors.....		49	35	
Brakemen.....		46	32	
Joplin & Pittsburg Ry. Co., Pittsburg, Kans.....	July 31, 1918	42	35	20.0
Kansas City Rys. Co., Kansas City, Mo.....	Oct. 24, 1918			
Kansas division.....		48	33	45.5
Missouri division.....			38	26.3
Knoxville Railway & Light Co., Knoxville, Tenn.....	Jan. 15, 1919	40	29	37.9
Lewiston, Augusta & Waterville Street Ry. Co., Lewiston, Me.....	Nov. 20, 1918	43	31	38.7
Louisville & Interurban R. R. Co., Louisville, Ky.....	Feb. 4, 1919	45		
Louisville Ry. Co., Louisville, Ky.....	do.			
City lines.....		45	38	18.4
Suburban lines.....			39	15.4
Memphis Street Ry. Co., Memphis, Tenn.....	Oct. 24, 1918	40	28	42.9
Chicago surface lines, Chicago, Ill.....	July 31, 1918	48	39	23.1
Chicago & West Towns Ry. Co., Chicago, Ill.....	do.	48	39	23.1
Cincinnati & Columbus Traction Co., Cincinnati, Ohio.....	Nov. 22, 1918	45	37	21.6
Cincinnati, Lawrenceburg & Aurora Electric Street R. R. Co., Cincinnati, Ohio.....	do.	45	37	21.6
Cincinnati, Milford & Loveland Traction Co., Cincinnati, Ohio.....	do.	42	32	31.3
City Ry. Co., Dayton, Ohio.....	Oct. 24, 1918	45	33	32.4
Cleveland & Eastern Traction Co., Cleveland, Ohio.....	July 31, 1918	42	35	20.0
Cleveland & Erie Ry. Co., Girard, Pa.....	Feb. 4, 1919	43	33	30.3
Cleveland, Painesville & Eastern R. R. Co. and Cleveland, Painesville & Ashtabula R. R. Co., Willoughby, Ohio.....	July 31, 1918	42	35	20.0
Cleveland Ry. Co., Cleveland, Ohio.....	do.	48	35	37.1
Cleveland, Southwestern & Columbus Ry. Co., Cleveland, Ohio.....	do.	42	32	31.3
Columbus Railway, Power & Light Co., Columbus, Ohio.....	do.	45	31	45.2
Cumberland County Power & Light Co., Portland, Me.....	Nov. 20, 1918	45	33	36.4
Dayton Street Ry. Co., Dayton, Ohio.....	Oct. 24, 1918			
Day men.....		45	34	32.4
Night men.....			33	
Denver & Inter-Mountain R. R. Co., Denver, Colo.....	Nov. 20, 1918	48	34	41.2
Denver Tramway Co., Denver, Colo.....	do.	48	40	20.0
Detroit United Ry. Co., Detroit, Mich.....	July 31, 1918	48	40	20.0
New Orleans Railway & Light Co., New Orleans, La.....	do.	42	24½	71.2
New York State Railways, Rochester, N. Y.....	do.			
City lines.....		45	37½	20.0
Interurban lines.....		47		25.4
Oakwood Street Ry. Co., Dayton, Ohio.....	Oct. 24, 1918			
Day men.....		45	34	32.4
Night men.....			33	
Ohio Electric Ry. Co., Lima, Ohio.....	Jan. 15, 1919			
Lima city lines.....		42	33	27.3
Lima interurban lines.....	Jan. 15, 1919	45	40	12.5
Ohio Electric Ry. Co., Newark lines, Newark, Ohio.....	do.			
City lines.....		42	33	27.3
Interurban lines.....		45	40	12.5

Summary of awards of National War Labor Board—Continued.

Name of company.	Date of award.	Scale granted.	Previous scale.	Per cent increase.
Ohio Electric Railway Co., Springfield interurban lines, Springfield, Ohio.....	Jan. 15, 1919	<i>Cents.</i> 45	<i>Cents.</i> 40	12.5
Ohio Electric Railway Co., Zanesville lines, Zanesville, Ohio.....	do.	42	33	27.3
Omaha & Council Bluffs Street Ry. Co., Omaha, Nebr.....	July 31, 1918	45	40	12.5
Ottumwa Railway & Light Co.....	Dec. 5, 1918	42	31	35.5
Pacific Gas & Electric Co., Sacramento, Calif.....	Apr. 10, 1919	46	34	35.3
Pennsylvania-New Jersey Ry. Co., Trenton, N. J.....	July 31, 1918	42		
Peoples Ry. Co., Pennsylvania-New Jersey Ry. Co., Trenton, N. J.....	do.	42		
Peoples Ry. Co., Dayton, Ohio.....	Oct. 24, 1918	45	32	40.6
Philadelphia Railways Co., Philadelphia, Pa.....	do.	45	37	21.6
Portland Railway, Light & Power Co., Portland, Oreg.: City lines.....	do.	50	45	11.1
Interurban lines.....	Nov. 21, 1918	54	48½	11.3
Passenger trainmen.....				
Freight trainmen.....				
Express, local freight, and day yard crews.....		56		
Night yard crews.....		60		
Passenger and freight brakemen.....		47		
Day yard crews.....		59		
Night yard crews.....		60		
Public Service Ry. Co., Newark, N. J.....	July 31, 1918	45	40	12.5
One-man car operators.....	June 25, 1919	50	45	11.1
Reading Transit & Light Co., Reading, Pa.....	Feb. 4, 1919	43	40	7.5
Rhode Island Co., Providence, R. I.....	Oct. 2, 1918	48	37	39.7
St. Joseph Ry. Light & Power Co., St. Joseph, Mo.....	Feb. 4, 1919	42	32	31.3
San Diego Electric Ry. Co., San Diego, Calif.....	Apr. 10, 1919	45	38	18.4
San Francisco-Oakland Terminal Rys., Oakland, Calif.: City lines.....	do.	48	42	14.3
Interurban lines.....		50	45	11.1
Brakemen.....		48		
Savannah Electric Co., Savannah, Ga.....	Dec. 17, 1918	42	30	40.0
Schenectady Ry. Co., Schenectady, N. Y.....	July 31, 1918			
City lines.....		45	37½	20.0
Interurban lines.....		46½	39	19.2
Scranton Railway Co., Scranton, Pa.....	July 31, 1918	45	32	40.6
Syracuse & Northern Electric Ry., Syracuse, N. Y.....	Nov. 21, 1918	45		
Syracuse & Suburban R. R. Co., Syracuse, N. Y.....	do.	42	32½	29.2
Toledo, Bowling Green & Southern Traction Co., Findlay, Ohio.....	Dec. 5, 1918			
City lines.....		42	32	31.2
Interurban lines.....		43	33	30.2
Toledo Railways & Light Co., Toledo, Ohio.....	May 27, 1919	46	38	21.1
United Traction Co., Albany, N. Y.....	July 31, 1918	40	36½	9.6
Washington Ry. & Electric Co., Washington, D. C.....	Mar. 25, 1919	48	34	23.1

MR. WARREN. If the commission does not wish to ask anything, I will pass to the next chart, which is marked for identification, "C-136, cost of material."

Commissioner WEHLE. Would it not be useful in connection with this statement to have a list of the 60 companies?

MR. WARREN. I think we could furnish that.

MR. WELSH. Yes; I could furnish that.

Commissioner WEHLE. You might make a note of it.

MR. WARREN. Now, Mr. Welsh, this chart which is marked "cost of materials," indicates what, with its accompanying table?

MR. WELSH. This chart shows the cost of materials for each of the census years. That is not shown as a direct item in the census reports, but has been estimated on the following basis: We have deducted the annual expenses from the total operating expense covering the cost of labor, the purchase of power, insurance, and other miscellaneous items which are found by analysis not to contain cost of materials. In this way the estimated amounts have been determined and plotted.

Commissioner MEEKER. Will you restate that, please?

Mr. WELSH. I will state this: That on the second table the exact method of determining this estimated amount for material is shown. It consists in deducting from the total operating expense the cost of labor as shown by salaries and wages, purchased power, injuries, and damages, and certain other miscellaneous items as indicated, leaving what is believed to be a net result containing as nearly as possible the cost of material.

Mr. WARREN. In other words, you have endeavored to take out of your operating expense everything of any other nature than materials and supplies?

Mr. WELSH. Exactly.

Mr. WARREN. And assuming that you have done that correctly, what is the result shown?

Mr. WELSH. One interesting feature is the falling off in the percentage between 1907 and 1912 in the cost of materials, as compared with the total cost. This is probably due to the increased purchase of power during that same period as the result of which the cost of coal, which previously had been included as a material expense, is no longer present. This chart shows that at the present time about 23 per cent of the operating expense is material.

Mr. WARREN. Where does the cost of power purchased enter in the operating expense, Mr. Welsh?

Mr. WELSH. It is a part of the total item of cost of power.

Mr. WARREN. But it is itemized so it can be segregated?

Mr. WELSH. Oh, yes; it is segregated in the census report.

Mr. WARREN. You have not the cost of material for 1918, have you?

Mr. WELSH. No, sir; we did not have sufficient data to make an estimate.

Mr. WARREN. It might interest the commission, if I may refer, not as a witness, but to something within my own experience in a recent rate case in Massachusetts on this cost of material. I asked the company which I represented to take their material and supply quantities for last year, 1918, the actual quantities of various supplies which they used, with the cost of them, and to apply to those quantities the prices prevailing in 1914 and then to take the per cent of the increase. They gave me a schedule which was introduced in the case and which was not, as I recall it, controverted by anybody, and if it was correct it indicated an increased cost of the materials actually used by that company in 1918 over what they would have cost in 1914 of 105 per cent. And as far as I was able to ascertain, it was accurate; at any rate, it indicated a very large increase. And I think, as I recall it, the commission in its decision adopted that figure and referred to it.

Is there anything else on that chart?

Mr. WELSH. I think not.

The statement accompanying Chart 136 is as follows:

Cost of materials.

(Chart 136.—Based on U. S. census reports.)

	Cost of material and supplies.	Ratio of cost of material and supplies to operating expense.	Per cent increase in cost of materials and supplies over prior census.
		<i>Per cent.</i>	
1917.....	\$104,613,415	23.12	38.9
1912.....	75,271,556	22.61	13.3
1907.....	67,025,418	26.67	72.7
1902.....	38,811,232	27.28	.....

NOTE.—Above information collected from census figures as follows:

1. Operating expense figures from Table 2, 1917, and Table 5, 1912.
2. Cost of materials and supplies considered as that portion of the operating expense remaining after deduction of following items:
 - (a) Salaries and wages: Table 2, 1917, and Table 5, 1912.
 - (b) Purchased power: Table 104, 1912, and advance sheet for 1917 corresponding to Table 163 for 1912. Figure used for 1917 is difference between "Power purchased and exchanged" and credit entry for same item. This apparently taken into account for other years in Table 104 in 1912 book.
 - (c) Insurance: Same source as item b.
 - (d) Injuries and damages: Same source as item b—used three-quarters of amounts given as representing other items than materials and supplies.
 - (e) Total rents: Same source as item b except year 1902 where for "rent of equipment" (which was not reported separately) 0.288 per cent of total operating expense was used which was percentage for 1907 given in 1912 book. (1907 book figures differ.)
 - (f) Stationery and printing: Table 104, 1912, except for year 1917 where this item was probably included in general expenses under general and miscellaneous. Therefore estimated for 1917 as 2 per cent of general and miscellaneous which was percentage for all other years.
 - (g) Depreciation of ways and structures: Same as item b except no data for 1907 or 1902.
 - (h) Depreciation of equipment: Same as item c except no data for 1907 or 1902.

Detailed figures showing total reductions for obtaining cost of materials and supplies.

	Railway operating expense.	Total deductions.	Cost of materials and supplies.	Salaries and wages.	Purchased power.	Insurance.
1917.....	\$452,594,654	\$347,981,239	\$104,613,415	\$267,240,362	¹ \$37,757,963	\$3,101,407
1912.....	332,896,356	257,624,800	75,271,556	200,890,939	24,696,647	3,151,576
1907.....	251,309,252	184,283,834	67,025,418	150,991,099	12,342,258	3,137,071
1902.....	142,312,597	103,501,364	38,811,232	88,210,165	3,871,518	2,080,875

	Injuries and damages (three-quarters of total).	Total rents (tracks, facilities and equipment).	Stationery and printing.	Depreciation of ways and structures.	Depreciation of equipment.
1917.....	\$17,807,473	\$7,152,823	¹ \$1,284,000	\$6,800,348	\$8,836,863
1912.....	17,530,970	4,873,359	1,105,422	3,705,511	3,670,376
1907.....	13,682,229	3,342,615	838,562	.....	.....
1902.....	7,046,659	¹ 1,795,766	496,381	.....	.....

¹ See notes for each respective item on sheet accompanying this.

MR. WARREN. The next exhibit which we wish to introduce, Mr. Chairman, but of which we have not the extra copies at the moment to supply the members of the commission, I will read into the record. It is the United States Department of Labor, Bureau of Labor Statistics, Monthly Labor Review, volume 8, No. 6, page 97, which I imagine is fairly familiar to one member of your commission, because I notice his name on it as the commissioner under whose direction it was prepared. This table on page 97 shows wholesale prices in the United States and certain foreign countries, and the Bureau

of Labor Statistics treating 294 commodities showed for March, 1919, the figure 200. That I should like to consider as in the case, and we will endeavor to get copies of that publication for all the members of the commission.

Mr. Pardee suggests that probably the commission will take judicial notice of that publication anyway, in view of the circumstances of its editorship.

Now the next chart, please. The next chart relates to the taxes and is marked for identification "C-122."

Mr. WELSH. This chart shows the total amount of direct taxes for each of the census years and also the percentage of operating expense which I believe is in answer to one of the previous inquiries. The percentage of operating expense has run in the neighborhood of 10 per cent, fluctuating somewhat from this figure with a very slight decrease in 1918 as compared with 1917. This may be accounted for by the fact that while the taxes in amount have actually increased in 1918 over 1917, the total operating expense has increased in so much greater proportion that the percentage of taxes compared to the total operating expense is somewhat less that year. We also show a segregation of the total taxes between the tax on earnings and capital and the tax on real and personal property. This is as shown in the census report.

Mr. WARREN. And as it appears in the statement annexed, in five years from 1912 to 1917, total direct taxes went up from about \$35,000,000 to \$45,756,000?

Mr. WELSH. Yes.

Mr. WARREN. And you have estimated them for 1918 at \$49,496,000?

Mr. WELSH. Yes, sir.

Mr. WARREN. They have gone up from \$35,000,000 in 1912 to \$45,750,000 in 1917 and to about \$49,500,000 in 1918?

Mr. WELSH. Yes.

Mr. WARREN. Does that total take in any of the indirect taxes or burdens in the nature of paving, repairing bridges, and that sort of thing?

Mr. WELSH. It does not. That is shown on a later table.

Mr. WARREN. These are money payments paid directly as taxes?

Mr. WELSH. These are moneys paid to the Federal, State, and municipal governments.

Mr. WARREN. Was there anything else on that statement?

Mr. WELSH. No.

The statement accompanying Chart No. 122 is as follows:

Taxes of electric railways.

(Chart No. 122—based on U S census reports.)

Item.	1902	1907	1912	1917	1918
Taxes (total).....	\$13,078,899	\$19,775,602	\$35,027,965	\$45,756,695	\$491,496
On real and personal property.....	5,835,542	9,464,616	15,658,239	21,804,619	
On earnings, capital and other.....	7,243,357	10,310,986	19,369,726	23,952,076	
Percent of operating expenses.....	9.19	7.87	10.55	10.11	9.93

Commissioner WEHLE. How much of the increase in taxes is traceable to higher valuations and how much to additional capital investment?

Mr. WELSH. It would appear from the chart as half—roughly they are about half and half.

Mr. WARREN. That really would not be so, would it, Mr. Welsh? You have segregated it into real and personal property and there the increase for 1912 to 1917 is from \$15,658,000 to \$21,804,000. Do you think that in those five years the companies added enough property to represent such an increase as that? I know in Massachusetts they did not, because they could not get the money to do it.

Mr. WELSH. That rate of increase is apparently higher even than in the case of the tax on earnings, where the increase was from \$19,000,000 to \$24,000,000.

Mr. WARREN. Is not this probably the explanation, that the rate of taxes has gone up in nearly all the communities?

Mr. WELSH. I think that is undoubtedly true.

Mr. WARREN. On real and personal property?

Mr. WELSH. Yes.

Mr. WARREN. It has in Boston. In Boston the city has had to go to the legislature both last year and this year to get the tax limit which is permissible under the statute raised, so that they could assess a higher percentage on property. The taxes have increased very much there.

Commissioner WEHLE. Of course the increase in rate of tax certainly would account for part of this increase in the total amount of taxes paid, but would it not perhaps render this statement more valuable if we also had accompanying it a statement of the additional capital that had been invested?

Mr. WARREN. During that period?

Commissioner WEHLE. During that period, and some estimates perhaps, if it could not be had in a better way than an estimate, of the increased valuation of the property which is being taxed. It seems to me that the total of the tax itself is not of great service to us unless it is analyzed in some such way.

Mr. WARREN. Yes, I think that suggestion is a good one and we will try—Mr. Welsh thinks he can furnish it and we will endeavor to do so.

Now the tax on earnings, capital and other items, Mr. Welsh, between 1912 and 1917. I suppose the Federal tax is reflected in there almost entirely, is it not?

Mr. WELSH. Yes, sir.

Mr. WARREN. I think that the commission would find—and if we can get the information we shall furnish it—that the local taxes or the State taxes on capital and earnings have diminished in that five-year period. I happen to know that is true in Massachusetts, where our taxation on capital is largely a franchise tax. It is based on the market value of the stock in the aggregate from which is deducted the aggregate amount of real and personal property taxed in the different communities. The balance is taxed at the State rate and paid through the State tax authorities. Now in those five years the securities or stock of the street railways has depreciated to such an extent that in almost no case, I think probably not in any case whatever ex-

cept some leased roads, is there any market value left to the stock sufficient to produce any margin between the aggregate market value of the stock and the property taxed locally; and various companies which five years ago paid a large franchise tax to-day are bearing no franchise tax because it is based on that market value of the stock, and the market value has dropped to such an extent that stocks which five years ago were sold in the market at \$100 or \$125 and in some cases \$150 to-day are selling at anywhere from \$20 to \$72 a share; and of course that drop has wiped out the franchise tax; but in the meantime the Federal tax has come in at an increased rate.

If that is all on that chart, we will pass to the one marked for identification, "C-132."

That last chart was based on the census, was it not?

Mr. WELSH. Yes, sir.

Mr. WARREN. With the exception of the last year, 1918?

Mr. WELSH. Yes.

Mr. WARREN. And that was estimated as you have explained?

Mr. WELSH. Yes.

Mr. WARREN. This chart is not based on the census, is it?

Mr. WELSH. To some extent; it is based partly on the census and partly in response to an inquiry sent out to all companies to obtain the cost of their paving and other imposts, such as free transportation of employees, cleaning and sprinkling of streets, removal of snow and ice and various other items—

Mr. WARREN. Strengthening bridges?

Mr. WELSH. Strengthening bridges.

Mr. WARREN. And rebuilding bridges and eliminating crossings?

Mr. WELSH. And tolls over bridges that are free to the general public and other imposts of a general character that are imposed upon electric railways.

Mr. WARREN. When you say free transportation of employees you mean of public employees?

Mr. WELSH. Or municipal employees. This questionnaire covered the period from 1912 to 1916, that period having been chosen because it was believed to be more typical than the present time as representing a more normal situation before the war. The result of that is shown in this curve next to the bottom which represents the total amount of these various imposts in dollars, from which it is seen that during the maximum period in 1914 they amounted to about \$22,000,000 or about 3¼ per cent of the gross earnings.

Since 1914 there has been a falling off in these expenditures continuously resulting because of decreased work of this public character since the war started.

This chart also shows the direct taxes plotted on the previous chart and, in this case, the percentage of direct taxes to the gross earnings. From this chart it appears that the total imposts and taxes amount to about 10 per cent; 6½ per cent for the direct taxes and about 3½ per cent for the indirect.

Commissioner BEALL. Would it not be well to bring out before the commission the fact that while that is the average of the companies, in the bigger cities it is very much more than that? That is one of the principal troubles of the large companies—the paving and other taxes which are imposed, which are very much greater than in the smaller communities. And I want to ask you, does it not run up as

high as 10 and 15 per cent of the gross in some of the larger companies in the big cities?

Mr. WELSH. I think in some of the larger companies that will be found to be the case.

Commissioner BEALL. The reason I want to make that statement is so the commission will understand in some of the small companies the paving is not such a problem but in the big companies it is one of the principal things which has contributed to their present condition.

Mr. WELSH. That is true, and of course another thing which might be properly charged here is the return on additional construction which is not contained here, this being in every case the actual expenditures of the companies. Of course, you will understand these items are included in operating expense. This is the only additional item from operating expense.

Commissioner MEEKER. Would it be possible to submit tables showing the paving costs and these other imposts in railway companies operating in large urban communities?

Commissioner BEALL. I believe that is very advisable, Mr. Welsh. Take cities of say 100,000 and up.

Mr. WELSH. I may say that this is based upon replies from, I believe, 214 companies.

Commissioner BEALL. Well, a great many of those companies are interurban, are they not? They have practically no paving at all unless they also have an urban system.

Mr. WELSH. Undoubtedly—

Commissioner BEALL. But a great many of those companies come into big centers over another company's lines.

Mr. WELSH. Yes. We can prepare that, can we not?

Mr. WARREN. I think we can prepare that.

Commissioner GADSDEN. Make a table of certain typical companies in certain cities.

Mr. WELSH. Yes.

Commissioner BEALL. In making up this chart on the cost of paving has there been any attempt made to separate the cost of complying with the requirements of the contract with the city as to the general street improvement from the cost of actually maintaining the structure and right of way in ways that the railroad company would have to adopt even in the absence of any such agreement?

Mr. WARREN. I understand that this inquiry was confined to the paving cost which was not incident to the maintenance of the railway. Is not that so, Mr. Welsh?

Mr. WELSH. That is true, and we should and can submit the form of questionnaire which will show in detail just the items included in this total cost of the various imposts.

Commissioner WEHLE. Then this curve on Chart 132 entitled "Paving and other imposts," in so far as it relates to paving, is based upon estimates in which the cost of complying with that part of street construction which has no reference to the actual maintenance of the railroad is separated from such part of the cost of street construction and repair as has reference to it and as would necessarily have to be incurred by the road in any event as an operating proposition?

Mr. WARREN. I think that is true in the questionnaire.

Commissioner WEHLE. I wonder whether—in connection with that chart, C-132—if it is convenient, the form of that questionnaire could be filed?

Mr. WARREN. Yes; we can file it.

Commissioner BEALL. Why not read it right now?

Mr. WARREN. While Mr. Welsh is looking for that I might say that this item properly is a good deal larger than it is shown here, at least as indicated by one of the commissioner's questions.

Commissioner BEALL. Yes; I know one company that spent \$4,000,-000 in one year.

Mr. WARREN. Yes; you see this includes a large number of roads, some of them interurban lines and some rural roads where the track is not laid on the highway but out on the side in the grass and there is no paving cost whatever, but yet the paving cost averaged over all those roads amounts to this amount.

In Massachusetts we have a tax which runs approximately $2\frac{1}{2}$ per cent of the gross receipts which is called, or miscalled, a commutation tax. It is levied as an intended substitute for this highway work not incidental to taking care of the track but because of the former imposition or requirement of the law. In addition to that, however, many of the companies have spent a great many thousands of dollars a year on this very same kind of work, because the local authorities have met a request for a new turn-out or for a shifting of tracks or for some other concession which the company wanted for better service, with a suggestion that they would grant it if the company would pave a certain piece of track or change the pavement to conform to something that the city had been putting in. So there is no doubt that this item—in my judgment—is very much below the actual fact. And of course, as Mr. Welsh said—and you will correct me if this is not right, Mr. Welsh—this is merely the annual expenditure on paving from year to year and does not include the paving connected with the construction of track at all, does it?

Mr. WELSH. As indicated here; yes, sir.

Mr. WARREN. On the cost of which the company, of course, is paying interest. Years ago in Boston it used to cost about \$7,000 a mile for block paving the track. I presume now it costs much more. That went into the capital and is one of the reasons why the capital cost of street railways is so high as compared with other railroads.

This is the questionnaire that was sent out: In State taxes—first the kind, then the basis, then the cost for the five fiscal years, 1912 to 1916, inclusive, and the total. City taxes—franchise, school, gross receipts, car, pole, wire, real property, cars for each year, and the total. Federal taxes—left blank in the first column. Apparently they thought it was not safe to specify, because they could not tell what they would be from day to day.

Other State, county, or municipal requirements—paving; please check extent of requirement; construction cost between tracks only; blank feet outside tracks, full width of street; maintenance cost; maintenance cost is against those last three items; cleaning streets; sprinkling; snow and ice removal from surface other than between tracks—in other words, the company takes that as part of its operating expenses—clearing its own tracks—free municipal lighting; free transportation, State, municipal, or Federal employees; bridge or viaduct tolls or repairs, free to others; special crossing policemen;

gross earnings, railway operation only; operating expenses, excluding taxes; total car-miles operated. If company is subject to any tax or requirement not listed above, please indicate below in detail.

I will ask to have this marked "Filed."

(The paper was marked "Filed.")

Mr. WARREN. Have you extra copies of this?

Mr. WELSH. We can very readily get them. I do not think we have enough this afternoon.

Mr. WARREN. I will leave this one now before the Commission and we will furnish the others as soon as we can obtain them.

Is there anything else that ought to be called to the attention of the board on that chart?

Mr. WELSH. I do not think so.

The statement accompanying Chart C-132 is as follows:

Paving and "other imposts" and taxes for all electric railways of the United States.

(Chart C-132—Based on replies from 214 companies (D. S. 182) and census reports.)

	1912	1913	1914	1915
Taxes.....	\$35,027,965	\$38,780,938	\$41,139,955	\$40,761,586
Paving and other imposts.....	15,068,414	21,372,414	21,536,481	20,442,519
Total.....	40,086,379	60,153,352	62,676,436	61,204,105
Gross earnings.....	585,930,517	640,857,949	647,350,574	636,719,681
Taxes of per cent of gross earnings.....	5.98	6.05	6.36	6.40
Paving and other imposts, per cent of gross earnings.....	2.57	3.33	3.32	3.21

	1916	1917	1918
Taxes.....	\$43,633,934	\$45,756,695	\$49,496,334
Paving and other imposts.....	18,472,989	17,522,593	16,065,000
Total.....	62,106,923	63,279,288	65,561,334
Gross earnings.....	688,968,612	730,108,040	765,000,000
Taxes of per cent of gross earnings.....	6.35	6.27	6.47
Paving and other imposts, per cent of gross earnings.....	2.68	2.40	2.10

Mr. WARREN. You spoke of the amount of this paving and other imposts falling off because of the diminution in the amount of public work being done. You mean owing to the war the municipalities themselves have been doing less work?

Mr. WELSH. Yes.

Mr. WARREN. And it is usually in connection with their public work that this requirement increases?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, if you will, pass to the next chart.

The CHAIRMAN. Will you follow this with someone who will testify more specifically with regard to the different forms of taxation and the cost of it and the effect it has on the stability of the industry?

Mr. WARREN. The different forms more specifically?

The CHAIRMAN. Yes.

Mr. WARREN. Yes, we hope to call an expert of pretty wide reputation on that subject. I might say we are trying to get these statistics before the commission as a basis upon which we can call the experts for the various specific points like that.

Now the next chart, Mr. Welsh, is marked "C-133." This chart is marked "Economies in Operation." What does that show?

Mr. WELSH. We have taken three measures of general economies in operation, the first being the revenue passengers per passenger car based upon the United States census reports.

There has been a very remarkable increase in this from the year 1902 to 1912. That represents probably a number of different things. The thing that first occurs to you is a greater crowd in the cars. Undoubtedly to some extent that has taken place. The size of the car body has also increased during this period, making a larger unit in which passengers are handled. To some extent there has undoubtedly been an increase in traffic at other times during the day to take care of this, so that it represents in general an increased use of the plant and equipment of electric-railway properties and therefore is in the nature of an economy.

This is further illustrated in a different way in the bottom curve, which represents the service performed by each car and shows the revenue car-miles per passenger car increasing at an approximately uniform rate from the earliest period to 1917. This in some measure may be accounted for by fitting the service more accurately to the traffic. This would be represented by an improvement in car schedules so that each car is able to perform more effectively its service. The introduction of such plans as turn-back service would result in a greater car mileage per car, for example. And therefore this, we believe, is indicative of an improvement in operating management throughout this period.

The middle curve, representing the revenue car-miles per mile of track, is possibly a measure of the density of traffic and may to some extent show the result of extensions in outer districts that have occurred during this middle period here, over which portions of track the density of service is, of course, less than in the more congested districts, this curve here being practically uniform throughout the entire period.

Mr. WARREN. Summarizing the chart generally, you would say that it rebutted the suggestion that the increase in your expense of operation was due to extravagant or ill-considered operation, would you?

Mr. WELSH. Yes, sir.

Mr. WARREN. Because it shows you are getting more out of your cars?

Mr. WELSH. It shows an increased use of plant and equipment.

Mr. WARREN. That is all on that, Mr. Welsh?

Mr. WELSH. Yes.

The statement accompanying Chart 138 is as follows:

Economies in operation.

(Accompanying chart 138.)

Year.	Revenue car-miles per passenger car.	Revenue car-miles per mile of track.	Revenue passengers per passenger car.
1890.....	¹ 11,788	¹ 47,172	¹ 62,206
1902.....	¹ 18,982	² 50,701	¹ 79,187
1907.....	² 23,105	² 47,053	² 106,277
1912.....	² 25,231	² 46,796	² 125,332
1917.....	² 28,776	² 47,726	² 141,460
1918.....	⁴ 26,241	⁴ 44,930	⁴ 142,048

¹ U. S. Census Report, 1902, p. 6, Table 1.

² U. S. Census Report, 1912, p. 186, Table 5.

³ Advance report, Table 5.

⁴ Estimate of capital, etc., 1918; based on data sheet 191, American Electric Railway Association.

Mr. WARREN. The next chart is marked "C-103, Income accounts of electric railways." Now, Mr. Welsh, what does this chart show? I suggest that in connection with the chart you look at the accompanying table so you can give the figures as well as referring to the lines on the chart.

Mr. WELSH. With this chart we start at the net operating revenue, which was the point which we left off in comparing the income accounts in the previous charts.

Mr. WARREN. That means the money which is available after you have paid your operating expenses for running the road, does it not?

Mr. WELSH. Exactly. It represents the net difference by deducting the operating expense from the operating revenue. This shows a uniform increase in the operating revenue up to 1912, and from 1912 to 1917 the rate of increase has notably fallen off as indicated in the chart, whereas from 1917 to 1918 there has been an actual decrease in the net operating revenue.

Mr. WARREN. That decrease is from \$228,898,000 to \$192,615,000; is it not?

Mr. WELSH. Yes, sir.

Mr. WARREN. As appears on the table?

Mr. WELSH. Yes.

Mr. WARREN. From that operating revenue under the system of accounting what do you first deduct?

Mr. WELSH. The net operating revenue is available for the following items: The deductions from income—I should first say for taxes—

Mr. WARREN. Taxes come out first?

Mr. WELSH. Taxes come out first, and they are represented as increasing at an approximate uniform rate throughout the period.

The next deduction is known as the deductions from gross income which also have run at about a uniform rate until 1912, at which point the rate decreases. This leaves what is known as the net income. I should say, however, that inasmuch as this is the net operating revenue from railway operation, before you arrive at the net income it is necessary to add the net revenue from auxiliary operations and the nonoperating income, and that has been done as indicated in the Census reports and that is in accordance with the Interstate Commerce Commission's classification methods. I wanted to explain that this net income was not the arithmetical difference by deducting taxes and deductions from gross income from the net operating revenue.

Mr. WARREN. Because you first have to add these miscellaneous sources of income?

Mr. WELSH. Yes, sir.

Mr. WARREN. Which are not the result of operating the railroad?

Mr. WELSH. The net revenue from auxiliary operations is shown on this chart, and it is rather interesting to note that it has throughout this entire period, even including 1918, increased in amount, whereas the net revenue from railway operations has gone through the cycle indicated here, showing that the auxiliary operations which include such things as operation of inclined planes, ferryboat service, or any other transportation activity that a company may be engaged in—it may also include some small power business.

Mr. WARREN. Now, Mr. Welsh, take, on your statement accompanying this chart, these figures for 1918, and explain to the com-

mission just how they should be treated to reach your net income. The first item I notice here is net operating income, \$192,000,000. Is that before or after the taxes have been deducted?

Mr. WELSH. That is before the taxes have been deducted. The next operation is the deduction of taxes amounting to——

Mr. WARREN. In other words, subtract \$49,000,000 taxes from \$192,000,000 operating revenue?

Mr. WELSH. Yes.

Mr. WARREN. The next is to add the net revenue from auxiliary operations?

Mr. WELSH. Yes.

Mr. WARREN. \$30,000,000?

Mr. WELSH. Yes.

Mr. WARREN. And then from that result you subtract your deductions from income; is that right?

Mr. WELSH. Before that you also add the nonoperating income, which is not shown here.

Mr. WARREN. You add that as well as the auxiliary operations?

Mr. WELSH. Yes.

Mr. WARREN. Then you subtract your deductions from income?

Mr. WELSH. Yes, sir.

Mr. WARREN. Which is \$180,000,000?

Mr. WELSH. Yes.

Mr. WARREN. And that consists of rentals for leased lines and, principally, of interest on funded and unfunded debt, does it?

Mr. WELSH. Yes, sir.

Mr. WARREN. And the residuum after that subtraction is what is available as a dividend on the stock?

Mr. WELSH. It is what is known as net income or loss, and that item is usually divided into either dividends, if it is a net income, and a surplus, or it may be a loss.

Mr. WARREN. But if it is not a loss, if you have not made a loss, at that point that is the only fund available for dividends on the stock?

Mr. WELSH. Yes.

Mr. WARREN. And in this case in 1918 that amount was \$20,000,000.

Mr. WELSH. Yes.

Mr. WARREN. For all the street railways?

Mr. WELSH. Yes.

Mr. WARREN. As against \$56,000,000 in 1917. Do you know what that figure was in 1916?

Mr. WELSH. No, I do not.

Mr. WARREN. You do not remember that it was about \$70,000,000.

Mr. WELSH. No, I do not.

Mr. WARREN. Have you anything that you could check that up by?

Mr. WELSH. We could get it, but I do not have the figure.

Mr. WARREN. Assuming it was \$70,000,000, that means in two years the net income or the amount available for dividends or for surplus or reserve has run down from \$70,000,000 to \$20,000,000?

Mr. WELSH. Yes.

Commissioner GADSDEN. This net income in 1918 of \$20,000,000 does not include more than about 50 per cent of the labor increases growing out of the decisions of the War Labor Board, does it?

Mr. WELSH. I think that is true; yes, sir.

Commissioner GADSDEN. What were those increases estimated at for the industry?

Mr. WELSH. Around 33 per cent.

Commissioner GADSDEN. In dollars and cents?

Mr. WARREN. About \$100,000,000, was it not?

Mr. WELSH. About \$100,000,000; yes, sir.

Commissioner GADSDEN. Between one hundred and a hundred and twenty-five million dollars. Therefore, if the full increase had been included in the 1918 report, there would have been an actual deficit instead of a net income, would there not?

Mr. WELSH. Yes.

Commissioner GADSDEN. Of some \$30,000,000?

Mr. WELSH. Yes; its operating revenue had not also increased.

Commissioner GADSDEN. The industry would have failed by some \$30,000,000 to meet its interest charges?

Mr. WELSH. Yes.

Commissioner GADSDEN. Is not that, in your judgment, what is happening right now?

Mr. WELSH. I believe it is.

Mr. WARREN. That is what this year is up against?

Mr. WELSH. That is what we are up against this year, based on the first four months.

Mr. WARREN. And is not another element which should make that still worse in so far as any companies which had supplies on hand which they bought before the latest increase in the cost of supplies—they are still putting those supplies in at the lower prices, whereas this year they would have to pay the high price?

Mr. WELSH. Undoubtedly many companies purchased materials in 1918 on the basis of contracts which were still in effect and were undoubtedly lower than anything they could buy at this time.

Mr. WARREN. I have in mind one company in Massachusetts, for example, which made a rail contract, I think in 1914, and made it for a very large quantity of rails on the theory that the prices were going to go up. It may have been just after the war started. They have been using those rails up to about this time. I think they are just getting their last deliveries under that contract, and the contract price is something like 40 or 50 per cent below what they would have to pay to-day on the present market price for rails. So that the \$100,000,000 increase in wages is going to be reflected also in supplies and materials.

Commissioner WEHLE. Those rails were for replacement?

Mr. WARREN. Yes.

Commissioner WEHLE. The scrap, of course, is more valuable than it was?

Mr. WARREN. It was during the war, yes; and it may be more valuable now than it was before the war. Is it, Mr. Pardee?

Mr. PARDEE. I am not sure. I do not think so. I know scrap rail—

Mr. WARREN. I know one Maine street railway where I am on the bondholders' committee and we expected to sell it for scrap and we could have gotten a very good price for it during the war. Unfortunately the road was serving the navy yard down at Kittery, down near Portsmouth, and the Government not only objected to our scrapping the road, but we felt as patriotic citizens we should not, so we

proceeded to operate it, and the minute the armistice came there was no market for the stuff at all. We could have gotten quite a dividend on our bonds if we could have sold it during the war.

Commissioner WEHLE. Is there some way by which we could have, in connection with this chart, a statement of what elements are deducted from the income?

Mr. WELSH. The census report shows three items, the interest in bonds, the rental of leased property, and miscellaneous deductions, which are a very minor amount.

Mr. WARREN. That balance sheet you expect to get copies of from the Census Department, do you not?

Mr. WELSH. Yes, sir.

Mr. WARREN. They have not come yet?

Mr. WELSH. No. I expect them any time.

Commissioner MEEKER. I notice that reference is made to data sheet No. 186. What does that refer to?

Mr. WELSH. Here again, we have estimated the 1918 values on the basis of the 345 companies.

Mr. WARREN. If there are no further questions we will pass to the next. You have nothing more to say on that?

Mr. WELSH. No.

The statement accompanying Chart 103 is as follows:

Income accounts of electric railways.

(Chart C-103—Based on United States census reports.)

	1902	1907	1912	1917	1918
Net operating revenue.....	\$105,241,420	\$155,755,655	\$217,295,588	\$228,898,968	\$192,615,867
Reductions from income.....	1 64,516,154	1 118,339,114	1 149,866,307	1 175,305,761	1 180,882,390
Net income.....	1 30,596,977	1 40,340,286	1 68,139,889	1 56,450,930	1 20,183,413
Taxes.....	1 13,078,899	1 19,755,602	1 35,027,965	1 45,756,695	1 49,496,334
Net revenue from auxiliary operations.....		2 11,122,951	2 17,319,760	2 28,331,470	2 30,790,165

¹ U. S. census reports, 1912, Table 5, p. 186.

² Advance report, Table 5, less advance report, Table 162.

³ Data sheet No. 186 (estimated).

⁴ Advance report, Table 5.

Mr. WARREN. We will pass to the next, which is marked for identification, "C-154, Net income of electric railways." Will you explain what that shows?

Mr. WELSH. This takes up the distribution of operating income from the point where it was left on the previous chart, starting with the net income, and shows the distribution of the net income between dividends and surplus or deficit.

Mr. WARREN. That is, this is the income available after you have paid interest and taxes and items of that sort?

Mr. WELSH. Yes; this represents the net income after the interest on bonded indebtedness has been paid and represents the amount available for dividends. The rapid increase from 1907 to 1912 is apparent and the rapid decrease from 1912 to 1917 and the disastrous decline in 1918, from \$56,000,000 to approximately \$20,000,000, is shown. At the same time the dividend follows very closely the curve of net income up to 1912, falling off somewhat less rapidly to 1917, due, however, apparently at the expense of the surplus, because the surplus has fallen off at a higher rate, which permitted somewhat

higher dividends to be paid in 1917 in proportion than were paid in 1912.

Mr. WARREN. But those were paid at the cost of the surplus?

Mr. WELSH. Of the surplus. In 1918 the surplus changed to a deficit of about \$24,000,000. At the same time dividends were paid. This apparently nominally can be explained by the fact we are dealing with a group of companies and not with one business, in which the deficit of those companies operating at a loss far exceeded the surplus of those companies that were able to declare some dividends.

Commissioner MEEKER. Would it not be better to segregate the companies showing a deficit from those which do not show a deficit?

Mr. WELSH. That can be done, I believe. I believe the census report does make that separation.

Mr. WARREN. The census does not make the segregation, does it?

Mr. WELSH. It makes this segregation; it shows a group of companies that have a net income and it shows another group of companies that have a net surplus.

Mr. WARREN. You might be able to combine those two to answer Mr. Meeker's inquiry in that way.

Mr. WELSH. Yes.

Commissioner MEEKER. If the data as presented is anomolous, as Mr. Welsh says, it would be very much better to give us refined statistics, it seems to me. Statistics of a birth rate based upon population including men and babies and old women is not so useful as a refined statement of the birth rate based upon the child-bearing women, women of child-bearing age, and the same principle I should think should apply in drawing up these statistics.

Mr. WELSH. I would like to call attention, however, that that same situation existed in the prior census years, although not aggravated in the same way. In other words, in 1917 when there was a surplus and dividends were declared, there was a group of some three hundred and odd companies, as I recall it, which operated at a deficit, and that same situation was true in prior years, but this represents the situation of the whole industry.

The statement accompanying Chart C-154 is as follows:

Net income of electric railways, including 1918 estimates of dividends and surplus.

	1902	1907	1912	1917	1918
Capital stock.....	¹ \$1,957,300,149	² \$1,543,269,002	² \$1,957,300,149	² \$2,006,151,013	³ \$2,237,539,630
Net income.....	⁴ 30,596,977	² 40,340,286	² 68,139,889	² 56,450,930	⁶ 20,184,413
Dividends.....	⁴ 15,882,110	² 26,454,732	² 51,650,117	² 48,337,435	⁸ 44,482,218
Surplus.....	⁴ 14,714,867	² 13,885,554	² 16,489,772	² 8,113,495	³ 24,298,805
Rate of return, per cent.	⁶ 1.61	⁷ 1.78	⁷ 2.64	⁷ 2.49	⁹

¹ U. S. census report, 1912, p. 186, Table 5.

² Advance report, Table 5.

³ Data sheet No. 191.

⁴ U. S. census report, 1912, p. 302, Table 158.

⁵ Data sheet No. 186.

⁶ Based on U. S. census report, 1912, p. 223, Table 59.

⁷ Based on advance report, Table 5.

Mr. WARREN. Turning to your statement accompanying this chart, Mr. Welsh, what was the rate of return on the capital stock for the different census years, beginning with 1902?

Mr. WELSH. The rate of return in 1902 was obtained by applying the dividends to the capital stock in each census year. The rate of

return in 1902 was 1.61 per cent; in 1907, 1.78 per cent; in 1912, 2.64 per cent; in 1917, 2.49 per cent; and in 1918, 0.9 of 1 per cent.

Mr. WARREN. Less than 1 per cent?

Mr. WELSH. Less than 1 per cent.

Commissioner WEHLE. Is this copied from the United States census?

Mr. WELSH. No; it has not been—that is, that value for the rate of return has been determined by taking the dividends shown in the United States census and the capitalization shown in the United States census, and then the rate of return is based upon those two amounts.

Commissioner WEHLE. So that the capitalization is not based upon any assumption of the railway association, but that is taken actually from the census report?

Mr. WELSH. Yes, sir.

Commissioner WEHLE. Do you happen to know—

Mr. WELSH. Pardon me. That capitalization is the capital stock, not the total capitalization. It is the rate of return on the capital stock.

Mr. WARREN. That seems to indicate that the industry has not been in a prosperous condition for some time, Mr. Welsh; does it not?

Mr. WELSH. Yes, sir.

Mr. WARREN. And it bears out what Mr. Pardee said in his opening statement to the commission, that it has not been prosperous for a long time, and that the war has greatly increased that bad situation?

Mr. WELSH. Yes, sir.

Mr. WARREN. As shown by your estimate of the dividends for 1918?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, the next charts are these in which you have divided the companies into groups, beginning with that marked "C-126?"

Mr. WELSH. I do not have the last chart.

Mr. WARREN. Have you any of those?

Mr. WELSH. I have No. 129.

Mr. WARREN. Well, we will distribute these now. We will take up the one marked "C-126," of which you have no large chart, Mr. Welsh?

Mr. WELSH. Yes, sir.

Mr. WARREN. But the commissioners have a small one.

Mr. WELSH. Yes.

Mr. WARREN. Now, will you explain that?

Mr. WELSH. The census reports divide the electric-railway companies into three classes, based upon their operating revenues. Class A are those companies having an annual operating revenue of \$1,000,000 or over; class B are those companies having an annual operating revenue of \$250,000 and up to \$1,000,000; and class C are those companies having a operating revenue of \$250,000. This is the Interstate Commerce Commission method of classification, and the census report show the income accounts upon the same basis. In addition to that, the census reports also show a separation of the elevated and subway lines.

Mr. WARREN. How do you mean they are class A? For instance, take the Boston Elevated Railway. That is both elevated and subway lines, and it also has surface lines. Would that be class A?

Mr. WELSH. I understand that all elevated or subway lines are classified together, and their operation does include the surface lines—that is, it is put in the classification of the rapid-transit lines.

Mr. WARREN. So that it is practically four classifications, is it?

Mr. WELSH. Yes, sir.

Mr. WARREN. Those companies, like the rapid transit of New York and the elevated in Boston, and the company in Philadelphia, would be in the elevated and subway class, and not in class A?

Mr. WELSH. That is true.

Mr. WARREN. Now, this Chart C-126 shows the net operating income of the electric railways by classes?

Mr. WELSH. Yes, sir; and in order to take account of the varying size of the companies, the charts have been plotted on a per-mile-of-track basis, so that there is shown here the first part of the income account, the net operating revenue for those four classes.

Mr. WARREN. For 1 mile of track?

Mr. WELSH. Per mile of track. The obviously greater amount of the elevated and subway lines as compared with class A, class B, and class C, in all the census years, is apparent. There has been a falling off in the net operating revenue also to some extent in all three classes from 1912 to 1917, although this is more apparent in the case of the elevated and subway lines, and in class A than it is in the other two, where it seems that the net operating revenue per mile of track has been about constant for classes B and C.

Mr. WARREN. Have you any explanation of that, Mr. Welsh?

Mr. WELSH. Apparently, the smaller companies have not been hit so hard with respect to several items of expense. Among other things, the rush-hour service does not affect the smaller companies at all, you might say, or to anything like the degree that it does affect the other companies.

Mr. WARREN. That is, the small companies are apt to operate in the country or in small towns where the riding is more uniform—

Mr. WELSH. Throughout the day.

Mr. WARREN. Throughout the day?

Mr. WELSH. Yes, sir.

Mr. WARREN. And that, of course, reduces their operating expense very largely?

Mr. WELSH. Yes, sir.

Mr. WARREN. The reason it does is because they do not have to have so many men, they do not have to have so many cars, and they do not have to have so much power for use for short periods; is it not?

Mr. WELSH. All at one time; yes, sir.

Mr. WARREN. As a matter of fact, the smallest class here of all, class C, which you say has net earnings of what?

Mr. WELSH. Under \$250,000.

Mr. WARREN. Under \$250,000—seems to have shown an increase in the net operating revenue between 1902 and 1917.

Mr. WELSH. Yes, sir; a slight increase.

Commissioner GADSDEN. What is class A?

Mr. WELSH. Class A are companies having an operating revenue in excess of \$1,000,000.

Commissioner GADSDEN. And class B?

Mr. WELSH. From \$250,000 to \$1,000,000.

Mr. WARREN. You have not figured the percentage of those earnings, have you, Mr. Welsh?

Mr. WELSH. In what way?

Mr. WARREN. The per cent of increase and decrease for the different census periods.

Mr. WELSH. No; we have not.

Mr. WARREN. I think it would be interesting if you could figure the per cent of decrease on that class A from 1912 to 1917—that is, the large city companies I do not mean now.

The figures on the statement accompanying Chart 126 are as follows:

Net operating revenue per mile of track by classes of electric railways.

(Chart 126.—Based on United States census reports.)

	Elevated and subway.	Class A.	Class B.	Class C.
1902.....		\$9,025	\$3,408	\$1,443
1907.....	\$42,879	8,036	3,053	1,712
1912.....	53,727	8,592	3,420	1,835
1917.....	51,485	7,893	3,461	1,877

NOTE.—All above figures were taken directly from 1912 census table No. 120, p. 258, with exception of those duplicated below, together with figures used in calculating same and source of figures used

	Year.	Net operating revenue.	Miles of track.	Net operating revenue per mile of track.
Subway and elevated.....	{ 1907	(90) \$18,745,029	(153) 437.16	\$42,879
	{ 1912	(90) 28,625,860	(153) 532.80	53,727
	{ 1917	(90) 36,867,482	(153) 716.08	51,485
Class A.....	1917	(85) 205,743,098	(53) 26,065	7,893
Class B.....	1917	(85) 35,507,354	(53) 10,259	3,461
Class C.....	1917	(85) 15,979,986	(53) 8,512	1,877

NOTE.—Figures in parentheses shown above are census table numbers giving source of information, taken from the 1917 advance sheets, the numbers corresponding to similar numbers of 1912 census.

Mr. WARREN. Now, the next chart, which is a large one.

Mr. WELSH. No. 129 is the next.

Mr. WARREN. You have not a large chart on 129, either, have you?

Mr. WELSH. No.

Mr. WARREN. That shows the net income of electric railways by classes per mile of track, the previous one having shown the net operating revenue. This is the same classification, is it not?

Mr. WELSH. This is the same classification, and takes up the next income account. It shows a greater falling off in comparing 1917 with 1912 for all classes of electric-railway property.

Mr. WARREN. Bearing out the general result on the figures that you put in earlier on the income?

Mr. WELSH. Yes, sir.

Commissioner MEEKER. These classes, A, B, and C, are the same classes A, B, and C, as appear in the previous chart?

Mr. WARREN. The same classes.

Mr. WELSH. The same classes.

Commissioner MEEKER. Class A includes those lines with net operating revenues in excess of \$1,000,000?

Mr. WELSH. No; total operating revenues.

Commissioner MEEKER. Total operating revenues?

Mr. WELSH. Total operating revenues.

Commissioner MEEKER. Not net.

The CHAIRMAN. May I ask one question there with reference to Chart No. 126?

What significance do you draw from the fact that the net operating revenue of the subway and elevated railways is so much higher than that of the surface lines?

Mr. WELSH. That is the result of two things. In the first place, the density of traffic on the rapid-transit lines is far in excess of that on the surface lines, the number of cars and the number of car-miles operated per mile of track; and secondly, the number of passengers carried per mile of track is far in excess of those on the surface lines. Correspondingly, the investment per mile of track is very much greater than on the surface lines. The necessary sequence is that that should be so, that there should be that difference.

The CHAIRMAN. Does it not also indicate that people are demanding quicker transportation than that which can be furnished by the surface lines?

Mr. WELSH. I do not see that it does.

Mr. WARREN. There is a greater volume of traffic.

Mr. Welsh, in that first chart, C-126, it appears that in 1912 the elevated and subway lines earned between fifty and fifty-five thousand dollars per mile net operating revenue; is that right?

Mr. WELSH. Yes, sir.

Mr. WARREN. That means, after paying their operating expenses, they earned over \$50,000 a mile?

Mr. WELSH. Yes, sir.

Mr. WARREN. Now, if the commission does not object, Mr. Tripp, who is a director in the rapid-transit company in New York, would like to make a statement about the earnings of the elevated and subway lines.

Gen. TRIPP. I do not quite understand the chart, which appears to show that the net income per mile of track on elevated and subway lines, as shown by the heavy black line on the chart, is holding reasonably steady for the year 1917—only a slight decrease.

I am a director in the Interborough Rapid Transit Co. of New York, which operates the subways and the elevated there. The Interborough Rapid Transit Co., a year ago, or perhaps slightly over a year ago, paid 20 per cent dividends on its stock. To-day it is not earning its fixed charges. Therefore, I do not quite understand the situation as set out by these charts. Perhaps I do not understand the charts, but I felt that perhaps the gentlemen of the commission might be in the same situation that I am in. I am familiar with the operations of the elevated railways in Chicago, and those railways

are in a still more critical condition than the subways and elevated in New York city.

Mr. WARREN. How is that, Mr. Welsh?

Mr. WELSH. Well, we have no figures for anything more recent than that given by the census report.

Mr. WARREN. That is 1917?

Mr. WELSH. 1917; yes, sir.

Mr. WARREN. Now, do you happen to know whether there has been a marked change in the elevated and subway net operations?

Mr. WELSH. Undoubtedly there has been; yes, sir; but we have no figures on it.

Mr. WARREN. You have not the figures?

Mr. WELSH. No, sir.

Commissioner GADSDEN. Well, do those charts show any 1917 figures?

Mr. WELSH. It only shows as far as 1917. I have nothing on 1918.

Mr. WARREN. Would it be possible, Mr. Welsh, for you to get the 1918 figures now for some of those subway and elevated lines?

Mr. WELSH. I presume we could get them; yes, sir. We have made no attempt to get them.

Mr. WARREN. If we could get them, I think it would be well to do so, and add them to the charts which we have filed.

The Brooklyn Rapid Transit has elevated lines also?

Mr. WELSH. Yes, sir.

Mr. WARREN. As a matter of fact, that is one of the companies that is in the receiver's hands at the present time; is it not?

Mr. WELSH. Yes, sir.

Commissioner GADSDEN. Mr. Warren, I would suggest that it would help the commission to take up one or more of those large properties and have somebody fully conversant with their affairs come here and tell us about them, as an illustration of what these charts mean. You might get someone here from the Brooklyn Rapid Transit or Interborough.

Mr. WARREN. Yes.

Commissioner GADSDEN. And let him testify from his own knowledge of the difficulties of the industry.

Mr. WARREN. We expect to call the receivers of some of those roads to address the commission on their condition. Of course, it is a fact, an unfortunate fact, in presenting the case, and it is still a more unfortunate fact for the industry itself, that every year and every month, and every week, in fact, that is passing over our heads, is making this situation very much more desperate than we can possibly show from any figures for any past period of time. Gen. Tripp's question illustrates that. In 1917, apparently, if our chart is correct, and I believe it to be right—

Mr. WELSH. I have a photostatic advance copy here to check it with.

Mr. WARREN. You have?

Mr. WELSH. Yes, sir.

Mr. WARREN. And if our chart is right, it shows that these subway and elevated lines were earning a net income in 1917. Now, as a result of what has happened since 1917, one of the largest of them, that in Brooklyn, has had to go into the receiver's hands, and one

in New York has had to default on some of its bonds. The Boston one is having very hard sledding, and the Chicago company, I understand, is in a more or less similar difficulty. That is true not only of those companies, but it is true of nearly all of the surface companies also.

Commissioner WEHLE. How many companies are included in that statement?

Mr. WARREN. It is a census report. These charts that we are now putting in—

Commissioner WEHLE. But how many companies are covered in connection with the subway and elevated part of Charts C-126 and C-129?

Mr. WARREN. Can you answer that, Mr. Welsh?

Mr. WELSH. I can not answer it offhand. I am not sure that the census reports show that.

Mr. WARREN. You see, even the census reports which we have used for the year 1917 are advance sheets which were furnished to us through the courtesy of the Census Office, to enable us to make up these figures as well as we could. That is one of the difficulties of the situation, which are insurmountable. In order to get the information for any definite period, we have to take a past year, and the condition is changing so rapidly for the worst that a past year is of very little value as indicating the present condition.

Do you think you could get that from the census reports?

Mr. WELSH. I think very likely; yes.

Commissioner BEALL. There are only four places, as I remember it, that have subways, or, at any rate, three, and four that have elevated railways. I do not think there are any more. There is a small elevated system in Sioux City, but I do not think there is any large subway system outside of Boston, New York, and Philadelphia. For the elevated, you will have to add Chicago. I do not know of any others.

Mr. WARREN. Those are the only ones that I know of.

Commissioner BEALL. Well, there is one in Baltimore, the Roland Park Elevated road. I do not know how big it is.

Mr. WELSH. I have the figures here. There are seven companies, in 1917, classified as elevated and subway.

Commissioner BEALL. How many?

Mr. WELSH. Seven.

Commissioner BEALL. What were they?

Mr. WELSH. It does not give the names of the companies.

Commissioner BEALL. I think that you will find two of them are very small, the one in Baltimore, and the one in Sioux City. They do not amount to anything.

Mr. WARREN. You do not suppose they count the Manhattan Elevated as one and the Rapid Transit as another?

Commissioner BEALL. I was speaking of the cities.

Mr. WARREN. Two in New York, anyhow.

Commissioner BEALL. Yes; two in New York and two subways.

Mr. WARREN. Do any of you street-railway gentlemen know of any cities with subways or elevated railroads except Boston, New York, Philadelphia, and Chicago?

Mr. BLAKE. There are the so-called McAdoo tubes.

Mr. WARREN. I think that is classed as a steam road.

Commissioner BEALL. I think it is.

Mr. WARREN. It was taken over by the Government when it took over the roads.

The figures on the statement accompanying Chart 129, are as follows:

Net income per mile of track by classes of electric railways.

[Based on U. S. census reports.]

NET INCOME PER MILE OF TRACK.

	1902	1907	1912	1917
Elevated and subway.....		\$12,969	\$17,326	\$16,843
Class A.....	\$2,575	1,780	2,508	1,821
Class B.....	1,134	858	1,132	646
Class C.....	364	520	373	277

NET INCOME.¹

Elevated and subway.....		\$5,669,738	\$9,281,122	\$12,060,843
Class A.....	\$21,666,551	27,707,790	53,442,502	47,466,872
Class B.....	5,566,046	7,207,076	10,927,455	6,623,496
Class C.....	3,364,380	5,425,420	3,769,932	2,360,562

MILES OF TRACK.²

Elevated and subway.....		437.16	532.80	716.08
Class A.....	8,514.31	15,564.34	21,305.99	26,064.85
Class B.....	4,909.88	8,396.00	9,652.09	10,258.75
Class C.....	9,252.80	10,443.22	10,106.74	8,511.77

¹ Table 85, 1912 and 1917 census.

² Tables 53 and 153, 1917 and 1912.

Mr. WARREN. That concludes the charts which we have ready for to-day, Mr. Chairman.

The CHAIRMAN. Are you prepared to go ahead with another witness?

Mr. WARREN. Yes, sir; I would like to call Mr. Clark.

STATEMENT OF MR. WILLIAM J. CLARK.

Mr. WARREN. Your full name, Mr. Clark?

Mr. CLARK. William J. Clark.

Mr. WARREN. You are connected with the General Electric Co.?

Mr. CLARK. The General Electric Co.

Mr. WARREN. And you have been for how long?

Mr. CLARK. Thirty-two years.

Mr. WARREN. And that company, I suppose it is unnecessary to say, has been very closely identified with the development of the electric transportation art?

Mr. CLARK. It has.

Mr. WARREN. Will you state to the commission your experience in connection with electric transportation preparatory to going ahead and making a statement to them about the development of the art?

Mr. CLARK. To begin with, my first practical knowledge of electricity—not in an engineering way—began as far back as 1876, as a

boy, through William Wallace, the pioneer of arc lighting and the man who produced the first modern electric motor. However, my first active participation in the electric or street-railway business was with my associate, the late H. Holden Wood, in securing a charter from the Connecticut Legislature for what was the first electric street railway in the world—a very small affair, connecting the docks at Derby with the mills at Ansonia and what is now known as West Derby. It was at that time known as Birmingham.

In that connection I became intimate with Van Depoele, one of the earlier producers of electric-railway inventions, and the management of the concern at Chicago which owned these inventions of his, and it was in a bad financial way.

At the urgent request of Mr. Van Depoele and the management of the company, which controlled these patents, I undertook to in some way raise capital, so that they could go ahead and develop the industry under those patents. That resulted finally in my selling the same to the Thomson-Houston Electric Co., one of the predecessor interests of the General Electric Co., and ultimately, in my going with them and taking charge of their electric-railway development in the field.

That proposition involved more detail than is apparent on its face, because the first task which I performed was the purchase of a railway where they could demonstrate their new system.

For quite a number of years I averaged over 70,000 miles a year traveling on American railways in connection with this electric-railway development, having crossed the continent some 14 times in one year, during all of which, of course, I was obliged to familiarize myself with the financial and operating conditions involved in connection with the entire industry.

I am afraid, gentlemen, as I have had no chance for preparation, nor to talk with counsel, I might get into things that are not relevant, and I hope you will not hesitate to so inform me, if I do.

Now, the history of the street-railway business is briefly this: As you may know, as early as 1838, there was one experiment on the Baltimore & Ohio Railway right out here. I think there were scattered experiments throughout the world. There were two or three more in this country, up until about 1879, when Siemenes began his experiments at Berlin, and immediately after followed by Mr. Edison's famous road at Menlo Park, experimental.

For the next seven or eight years, and during that time, there were quite a number, say some 12 or 15. I could give you the list if I had my memoranda here. They were roads of different character constructed in this country, growing in size and importance, when the industry was given a tremendous impetus by the electrification of new lines at Richmond, Va., by my good friend, Mr. Sprague, who, I understand, is to testify here to-morrow.

Now, digressing for a moment, as I see the situation in a practical way, it was the development of three things of an engineering character which gave the tremendous impetus to the adoption of electric railways which began early in 1888. I think it was February 12, 1888, that the Richmond installation started. They were these things: What was known as the Sprague motor suspension, the very same practice as is followed everywhere on street-cars to-day; the carbon commutator brush, which is used on motors universally

the world over to-day, which created a great saving; and what was known as the pivoting underrunning trolley. Those three important inventions, developed at about this same time, were incorporated by Sprague in his development at Richmond. The Thomson-Houston Co. immediately thereafter proceeded to do the same thing.

Now, perhaps, I had better continue along this line, although I should like to say something about the economics of the street-railway situation prior to electricity coming into the field.

We thought—we in the industry—that when these inventions had been produced we had solved the great problem; in other words, that a car equipment produced would be good for 20 years; that a generator or dynamo would be good for 20 years; tracks, especially as in most of the electric-railway construction the best of engineering advice was secured from others, would last a good many years. But experience demonstrated otherwise; and perhaps I can not better illustrate it specifically than to refer to this little road of mine in Connecticut.

We retained the man who was then the chief engineer of the Baltimore & Ohio Railroad to advise us on this roadbed construction especially. We laid it with a 45-pound rail. Before 1896 it had been relaid three times, and heaven only knows how many times since.

We will turn now to the car equipment and the car bodies. During this same period it was found necessary to change the car bodies three times and the motors were changed five times, as well as the balance of the car equipment.

These same things occurred in connection with power station. We supposed that we had constructed something that was going to last for a great many years. By 1896 the third power station had been built to operate that system.

I am citing these facts, gentlemen, to try to make clear to you that to better serve the public and meet its demands, the losses of depreciation through obsolescence have been almost beyond estimate, in connection with all of the electric-railway systems of importance, other than those built since, we will say, 1896 or 1897.

To speak plainly, gentlemen—I known the accusation has been made—there is far less water in the capitalization of the street railways than is generally supposed. There is some, but what now may seem excessive capitalization has been created to a greater extent through this continual change, change and change, through advancement in the art to better meet the requirements of the public in the way of service.

Now, turning back, electricity did not bring about a manipulation of finance into the electric-railway field. It began long before that, as I could trace for you if I had certain data, which I will have here to-morrow. A very large part of what may be considered over-capitalization to-day can be traced back to those periods.

In the horse-railway days there were certain contracting concerns who used to do this thing in a sort of a way. They disappeared, almost all of them, with the advent of electricity. They were the fellows who built track with a 20 or 25 pound rail. As long as they had something to run cars over, on which to sell securities, bonds especially, they were contented.

That, as I said, was more common in the days before the advent of electricity than afterwards.

Now, going on with this question of the seemingly large capitalization, let me tell you how much of that was brought about—and I want to say this, gentlemen, that I personally have never, directly or indirectly, participated in putting a dollar of water into any street railway or any other public-utility property. If I may so put it, there is an infatuation about doing things electrically. It seems to inspire people with a public spirit, and through all of this development there has been this tendency to go fully up to meet the public demands, and incidentally to give the public advantages beyond what they had hoped for.

Once more returning to my own experience on this little line which we built—that was the nucleus of that tremendous system which now radiates over practically the whole State of Connecticut. We—that is, I mean my immediate associates and myself—felt that we had conferred a great blessing upon the public where we operated. We extended it somewhat before we sold it. We made no profit out of it. We were glad to get out alive. We lost nothing but our interests, but owing to what I have said, and I hope to have the figures here tomorrow, we sold it, if I recollect aright, Mr. Morgan, about 1896 or 1897—

Mr. MORGAN. I think so.

Mr. CLARK. I mean that property up in Connecticut.

Now, Mr. Morgan and his associates believed that they could afford to pay us what was seemingly a large price for that property, because, by extending it as they did, they could earn a larger return. They went ahead, and as I said before, it was the nucleus of their great Connecticut railway and lighting property, which has conferred a great many benefits on that little State, more of them than you can estimate. Now, I hope that they have made some money out of it in selling out that property. They well deserved to; but, gentlemen, it was only a small fraction of the benefits which I know of—because I still consider myself a Connecticut man—which it conferred on that entire State, in every manner, way, shape, and form, as it has elsewhere.

Now, in continuing that illustration, the New York, New Haven & Hartford interests, as you know, thought that they could buy Mr. Morgan's interests and those of his associates in the property, and that by adding on, they could earn a return upon it. They were not so successful. But in carrying this illustration into almost every community in this country we find the same thing. It is not the water that has been put in, you understand. It is upon this depreciation through obsolescence, and this increasing through combinations, facilities, in the belief that the ones holding the properties will be paid a large price—you can call that water if you want to, but the intentions were good, and the public derived terrific benefits from that.

Now, gentlemen, I fear that I have rambled greatly and have not been very relevant in my remarks.

Are there any questions that any of you gentlemen wish to ask me? I will be glad to answer them if I can.

Commissioner GADSDEN. Mr. Clark, are you familiar with the report of the Connecticut Commission recently on those properties?

Mr. CLARK. I am not, I am sorry to say. I have been very busy for Uncle Sam for nearly two years.

Commissioner GADSDEN. You do know that there was a committee appointed—

Mr. CLARK. Oh, yes.

Commissioner GADSDEN (continuing). To investigate those properties?

Mr. CLARK. Yes.

Commissioner GADSDEN. Do you happen to know that they reported that every mile of electric railway in Connecticut, except 12, was bankrupt?

Mr. CLARK. Well, I am not surprised. I had word to that effect.

Commissioner GADSDEN. And there is over 1,000 miles in that State?

Mr. CLARK. Yes, sir, and I believe Connecticut to be enormously benefited.

Commissioner GADSDEN. That is the same property that you have been giving us the history of?

Mr. CLARK. Yes; my little baby was the nucleus of it.

The CHAIRMAN. You have grown up with the electric-railway industry. What is the future?

Mr. CLARK. I wish that I knew. I believe that if temporary relief is afforded them, it is going to survive and continue on and be a great public blessing.

Now, in addition to all that has been shown you to-day—and more of the same character will doubtless be presented to you—as I see it, the street-railway industry is suffering from another cause, most acutely, and while this cause is going to be continued, I think you will find, looking back over the past history, a situation somewhat analogous as regards the effect of the electric railways on the local traffic on steam railroads. I mean the effect of the cheap auto—not of the jitney per se—but the cheap auto—which means really, as near as I can estimate it, after a good deal of study, the loss of anywhere—an average loss, we will say, of from three to five fares a day, because the man who owns the cheap auto not only goes back and forth himself, to and from his employment, but carries one or two of his neighbors. Now, the effect of that has been very, very acute, as you know, during the last few years. The cheap auto is going to continue. There is no mistake about that, and yet I think ultimately you will find, as I remarked a moment ago, that in time the travel which is now taken that way will come back to the street railways, just the same as the travel which the street railways took from the steam railroads locally has come back, to a great extent, to the steam railroads.

The CHAIRMAN. Is there any evidence of that?

Mr. CLARK. No; I can not say that there is as yet. I am simply judging by past experience in the other direction. Well, if I may qualify my remark—yes, I think there is, as shown in the dropping off of jitney traffic in certain localities, where apparently it is not as popular as it was. At the outset, everybody wished to ride in an auto. Now, I think that has changed very materially.

Commissioner GADSDEN. Mr. Clark, don't you think the parking problem is going to bring about a change in the use of automobiles?

Mr. CLARK. I do.

Commissioner GADSDEN. The inability to park cars downtown.

Mr. CLARK. Yes, sir; and congestion on your streets.

Commissioner GADSDEN. In some cities they are now stopping them from parking, are they not?

Mr. CLARK. Yes; and I think that is going to have its effect. I think you will have a great deal of restriction placed on the use of the automobile.

Commissioner BEALL. When you say that you can not foresee the future of the electric-railway industry, is it true that the average street railway is giving practically as good service with as good equipment, and has put in, in the past, all the improvements known to the art, yet the trouble is due to various reasons? They simply are not allowed to charge a proper return. There is nothing else to replace it, is there?

Mr. CLARK. No.

Commissioner BEALL. When you say that you can not foresee the future, I just wanted to get it into the record that you do not mean to say that their situation is due to the methods they have pursued, and that there is a better and cheaper method of doing it.

Mr. CLARK. No.

Commissioner BEALL. But simply that they are not allowed to earn enough to enable them to live?

Mr. CLARK. Yes; that is it exactly.

I will tell you two stories, if you will permit my digression, which I think are appropos.

As I remarked earlier in my testimony, I came into this industry through the selling to the Thomson-Houston Co. the Van Depoele railway patents. This deal was consummated on Washington's Birthday of 1888, at Boston. It being a holiday, Mr. C. A. Coffin, the man who has really made the General Electric Co., and is its chairman to-day, took more time than usual at the luncheon table, and he turned on me with this statement, "Clark, I never would have made that deal which I did make with you this morning, if I did not consider the possibilities of electric lighting exhausted to-day." Now, you can hardly grasp that to-day, but there were grounds for his making the statement.

Mr. WARREN. That was in 1888?

Mr. CLARK. That was on Washington's Birthday, 1888.

The country was filled with series of arc-lighting stations, which meant very little in the way of investment. That was the erecting of a central station, with new machines, and the hanging of some wire in the air and putting out some arc lamps. The possibility of direct current low-tension was appreciated, but you could not go great distances with that, probably only in the hearts of the large cities. The alternating current had not come along. So, seemingly, he had good grounds for making that statement.

The next is somewhat akin to that.

In that depressed condition of 1896—that awful summer—I caused a careful survey of the activities of all of the street railways in the United States to be made, delegating our own men, and taking men from student courses, young engineers, supply salesmen, and had an actual canvass or census made of all of their conditions.

The net result I was able to get together in August. I summarized it on a half sheet before I sent it over to Mr. ——. There was a hurry call for me to come to his office immediately. When I got there, he was pacing up and down the floor, and he said, "Clark, I can't see how we are going to do business." You gentlemen will remember that that was a very dull time, along about August, 1896. "You show that 90 per cent of all of the street railways of the United States are already electrified. Now, look at those two big factories at Schenectady. How are we going to keep them going?"

I told him the first story that I have just given you. He thought for a moment, and then he burst into laughter, and he said, "I guess you are right."

Now, I believe most thoroughly that the electric railway is going on, and not only in its present form upon your streets and other local transportation lines, but my view is that in my remaining years in this industry, I will see the electrification of steam railroads. I have no doubt that, when conditions are adjusted properly in this country, that form of electrification is going to come like a whirlwind.

Mr. WARREN. Mr. Clark, you spoke about obsolescence and the earlier costs of equipment. Do you remember what the electric equipment of a car used to cost in the early nineties around 1890 or 1888?

Mr. CLARK. I hope the Lord will forgive me for doing it, but I sold many of them for \$4,500.

Mr. WARREN. I think you did. I think you sold some of my clients up there. Lately, before the war began, what would a better equipment, much better equipment, have cost?

Mr. CLARK. Well, there was a period when it went down—better equipment than that—when we sold it for a thousand dollars, during the very low period of prices, and I should say that something comparable, before the war, sold for about \$1,100 or \$1,200.

Mr. WARREN. All of the companies which were organized in the earlier years, and which care to publish the early benefit of this improved traction system, bought their equipment at those prices, ranging from \$3,500 to \$4,500 per car?

Mr. CLARK. Oh, yes.

Mr. WARREN. And, of course, that was a legitimate basis for capitalization at that time?

Mr. CLARK. It surely was.

Mr. WARREN. And yet for equipment to-day—I say "to-day," assuming that prewar prices were still in effect—the same equipment, but a better quality or better character—better suited for the business of to-day—it would be figured at a thousand dollars or eleven hundred?

Mr. CLARK. Yes; about that.

Mr. WARREN. And that, in your opinion, accounts for a great deal of the so-called over-capitalization of trolley lines?

Mr. CLARK. Yes; it does.

Mr. WARREN. And that is merely one type of the things that those pioneer companies purchased, is it not?

Mr. CLARK. One type. You might carry that illustration further, in connection with their sources of current supply at stations. If the gentleman will pardon me, we began with dynamos of 80-horsepower capacity to operate the electric railways. There were very many electric engineers, when it was suggested that we build

one of about 600 horsepower, who shook their heads, saying that it would not be feasible. However, this was successfully done, but there were other street-railway engineers who still considered it impracticable; and if I recollect right, after that period, there was a station built in Cincinnati where there were some 80 of these little machines put in, and the extent of the building to put them in was something tremendous, you understand.

Now, all of this has no direct bearing, and yet it does serve some of these points.

I have heard some curious discussions among some of the celebrated engineers. I referred earlier in my testimony to the development of the carbon commutator brush. I might state that the copper brushes used before used to cut these to pieces—the most important and expensive part of the machine—within a few days. But the carbon, as you know, is a good preventive of that, and hence its great advantage. I heard Prof. Elihu Townsend tell Mr. Van Depoele, who invented the carbon commutator brush, that it could never be a commercial success, because of the resistance it would bring, and some people were furnished motors with copper brushes for a little while after that, as a result.

Remember, gentlemen, that this deal was uncharted when we started off, both electric lighting and electric railway, and while the evolution was rapid, there was much of it—very, very many changes.

One of the features after this period that I refer to of the three great inventions—no one—Sprague, or any of the rest of them who were in the field during any of those days—had a satisfactory controller. That was something that was always giving out. In that connection, I heard Prof. Thompson tell Mr. Potter that the magnet which was invented to prevent the blowing out could never be a success. That did not come along until about 1892, or perhaps the early part of 1891. Now that, in itself, meant the change of the controlling apparatus on every electric car then in operation.

Mr. WARREN. Still, that change was justified for the service?

Mr. CLARK. Certainly, as many, many others.

I started in to tell you about the power stations, and I might go through with that.

After we proceeded to build the big dynamos, for which we must give very much credit to our Westinghouse friends and to William Stanley, now dead, the utilization of alternating current for transmission purposes, and then inserting a substation, so that you could extend your line, was another great step forward. In those days especially, as you may know, the cost of that apparatus was terrifically high; and I might say in that connection, as I have stated about the \$4,500 per car equipment, the profits were not so very large, either. Expenses for engineering and engineering blunders were very enormous in both cases.

Commissioner SWEET. Mr. Clark, have you definitely made up your mind as to what the remedy for this situation is, or the remedies, perhaps?

Mr. CLARK. I have not, definitely.

Commissioner SWEET. I did not understand you.

Mr. CLARK. I say I have not, definitely.

Commissioner SWEET. Of course, in some way or other, the income of the electric-railway companies must be increased, or their expenses diminished, must they not, in order to live?

Mr. CLARK. They must be.

Commissioner SWEET. Perhaps something should be done in both directions.

Mr. CLARK. Exactly.

Commissioner SWEET. Do you take into account, in connection with this whole question, the fact that the purchasing power of a nickel has been very much reduced in the last few years?

Mr. CLARK. That is the whole story—not the whole story, but a very good share of the story, of course.

Commissioner SWEET. The people generally throughout the country have a sort of traditional idea that they ought to get a ride on a street-car for a nickel, have they not?

Mr. CLARK. That is it.

Commissioner SWEET. And yet the nickel of the present day is not the nickel of even five years ago.

Mr. CLARK. Oh, no; it is only about half of it.

Commissioner SWEET. To satisfy the people in the country—the general public—that they ought to pay more for the service they are getting, don't you think it would be necessary for the electric-railway companies to lay their cards down on the table, practically, and show the public what is being done?

Mr. CLARK. Surely I do; and I think they have, in a great many cases; and the more thoroughly that is done the better, unquestionably.

Commissioner SWEET. Of course you understand that this commission is very anxious to render a real service in solving this very difficult problem.

Mr. CLARK. I appreciate that fully.

Commissioner SWEET. And we want all the advice and assistance in the way of acquiring facts and ideas and suggestions that we can possibly get. I suppose it would be natural for the general public to say, "Can't the railroad companies do something by way of economy to cut down their expenses?"

Mr. CLARK. Exactly.

Commissioner SWEET. One question that might be asked—one question that comes into my mind there—is whether the alternating current that you have spoken of can be used on street-cars, or must it be transformed into direct current? Is that feasible?

Mr. CLARK. That has not been done yet, in an economical way. It can be done. It has been tried, you know, but it is not nearly as economical as the direct current.

Commissioner BEALL. Well, it has been a failure, has it not, Mr. Clark, commercially, on every road that has ever tried it? They have always lost money in comparison with other systems.

Mr. CLARK. Well, as our people have no. advocated that, you will pardon me for not answering that question.

Commissioner SWEET. You say you have advocated it?

Mr. CLARK. We have not.

Commissioner SWEET. Oh! There are probably practical reasons why the direct-current motor is the best for street-car service?

Mr. CLARK. So far as we know to-day.

Commissioner SWEET. Is the element of reversal one that enters into the problem?

Mr. CLARK. Oh, yes.

Commissioner SWEET. They have not succeeded in making an alternating motor that can be reversed?

Mr. CLARK. Oh, yes; it can be done.

Commissioner SWEET. It can be done?

Mr. CLARK. It can be done.

Commissioner SWEET. Then, what is the objection to it?

Mr. CLARK. The greater expense of maintenance. The maintenance is very, very much higher.

Mr. WARREN. The maintenance of the motor?

Mr. CLARK. Yes; the whole equipment.

Commissioner BEALL. They do not pick up, either, do they? You can not start them? It takes more current?

Mr. CLARK. Yes, it takes more current to start them, but the great feature is the maintenance, and, of course, you have more than the item, per se. For instance, if you have a hundred cars on the system, and you are averaging 1 per cent out of commission, you understand, that is very small, but if you have 10 or 15 per cent out of commission, you see the expense is cast on that item, as well as in the maintenance proper.

Commissioner SWEET. Then, it is your opinion that the direct motor is less likely to get out of order?

Mr. CLARK. Oh, yes, unquestionably. That has been demonstrated.

Commissioner SWEET. What about the original cost?

Mr. CLARK. The direct current is lower.

Commissioner SWEET. So that, on the whole, you do not see how anything can be particularly saved by a change in that direction?

Mr. CLARK. Oh, no. Of course, this is true, that as long as your labor item is the great big one in your operating expense, there is not very much room to cut down otherwise. Now, your current costs are small, relatively. Of course, it is entirely possible. I have ceased saying that anything is impossible. I have seen such wonderful things come.

We will say, for instance, Mr. Ford may revolutionize all traction on street railways, as he has said he is going to do. I don't think he will be able to do it, but it may come along and better our present form of electrification; but, as I remarked a moment ago, so long as you have to have platform wages, you understand, and switchmen and men in the car-barn, you have not great ways to go in the way of economy.

Mr. WARREN. Mr. Clark, right at that point, you spoke of Mr. Ford. Do you, as an engineer, think that a carrier on tires through the highway can ever be as satisfactory economically as a carrier on rails?

Mr. CLARK. Well, don't designate me as an engineer. I am only a hedgerow engineer. I am a plain everyday business man.

Mr. WARREN. Well, from your experience, which has covered a long period, do you think it can?

Mr. CLARK. As a wholesale transportation proposition, something equivalent in transportation facilities to that given by the street railway, no.

Mr. WARREN. Mr. Ford's suggestion, as I recall it, was to equip an automobile car which would run on rails, was it not?

Mr. CLARK. Yes.

Mr. WARREN. It was not to run a large jitney, for instance?

Mr. CLARK. Oh, that was not his idea, but if you will let me finish my answer, of course it does appeal to the average person, if they can be picked up at their own curbstone, you understand, and delivered at the curbstone where they wish to go; but, in my opinion, with any vehicle propelled by any power, not operating on rails, you can not care for local travel under the requirements of the American public. You can not do it.

Commissioner SWEET. Don't you think, Mr. Clark, that if it should result from this investigation that we are making that a recommendation be made for higher fares—an increase in the rates charged the general public—that we ought to be able to satisfy the public that we have investigated all possible economies from the side of the railroad companies?

Mr. CLARK. Surely.

Commissioner SWEET. And that we are satisfied nothing material can be done in that direction before our recommendation would have very much weight with the general public.

Mr. CLARK. Certainly it should, gentlemen.

Commissioner BEALL. Is it not true, Mr. Clark, that for, say, 10 years, there has not been any great new invention of importance of the art of electric-railway equipment for propulsion that will save any great amount of money, although there has been in electric lighting and power?

Mr. CLARK. That is true.

Commissioner BEALL. And there has not been any great improvement in the street-railway business?

Mr. CLARK. No.

Commissioner BEALL. You have increased the size of the car, and you have used more power?

Mr. CLARK. Yes.

Commissioner BEALL. But there has been no great improvement in 10 years, that is, that you can see at the moment?

Mr. CLARK. No; nothing radical. Of course, you have the one-man car and minor improvements, but there has been nothing great in connection with the art, like in electric lighting.

Commissioner BEALL. No; electric lighting and power has gone forward with great strides.

Mr. CLARK. Yes; certainly.

Commissioner SWEET. Mr. Clark, you will be here to-morrow, so that is we wish to ask you anything further we can?

Mr. CLARK. I surely will.

The CHAIRMAN. We will suspend until 10 o'clock to-morrow morning, sharp.

(Whereupon, at 5 o'clock p. m., the further hearing in this case was adjourned until to-morrow, Wednesday, July 16, 1919, at 10 o'clock a. m.).

WASHINGTON, D. C., *July 16, 1919.*

The commission met at 10 o'clock a. m., pursuant to adjournment of yesterday.

Present: Charles E. Elmquist (chairman), Edwin F. Sweet (vice chairman), Royal Meeker, C. W. Beall, D. B. Wehle, and Philip H. Gadsden, commissioners.

Appearances: As heretofore noted.

PROCEEDINGS.

The CHAIRMAN. You may proceed whenever you are ready, Mr. Warren.

Mr. WARREN. I will ask Gen. Tripp to take the stand.

The CHAIRMAN. Mr. Clark was on the stand at the time of adjournment yesterday.

Mr. WARREN. Yes. If the commission will permit us, I should like to defer the completion of Mr. Clark's testimony. He wants some figures which have not yet arrived, and Gen. Tripp is here and is very anxious to get away, as he has some other engagements.

The CHAIRMAN. Very well.

Mr. WARREN. And we have two or three other witnesses in the same situation.

STATEMENT OF GEN. G. E. TRIPP.

Mr. WARREN. Your full name is?

Gen. TRIPP. G. E. Tripp.

Mr. WARREN. And you are chairman of the board of the Westinghouse Electric Co.?

Gen. TRIPP. Yes, sir.

Mr. WARREN. Gen. Tripp, you have had, I believe, a long experience and acquaintance with street railways and electric railways?

Gen. TRIPP. Yes, sir.

Mr. WARREN. Will you kindly state to the commission what that experience has been and when it began.

Gen. TRIPP. My connection with street railways began as early as 1890, at which time I was in the employ of the Thomson-Houston Electric Co., and was assigned to the contract for the equipment of the West End Street Railway of Boston with electrical apparatus.

Mr. WARREN. That was one of the first of the larger systems?

Gen. TRIPP. That was one of the first of the larger systems.

Following that, I was an officer, as auditor and treasurer, of several street-railway systems throughout the United States, notably at Lawrence and Brockton, Mass., and Allentown, Pa.

I then became connected with Stone & Webster, and for about 15 years managed several of their street-railway properties. The managers at Seattle, Wash.; Dallas, Tex.; Fort Worth, Tex.; and Galveston, Tex., reported to me.

I also, during that period, acted as expert on behalf of Stone & Webster in various examinations of street-railway systems and reorganizations of street-railway systems.

In 1912, I became chairman of the Westinghouse Co., and in that capacity directed the policy of the various street-railway properties in which they were interested.

During that period I was president of the West Penn Railways, a system operating around Pittsburgh, Pa. I was president of the Western Light & Power Co. of Colorado, which was owned by Westinghouse, Church, Kerr & Co., of which I was also president.

I was and am a director in the Interborough Rapid Transit Co. of New York City, and the Interborough Metropolitan Co. of New York City, and I was until about two and a half or three years ago,

a director in the New York Railways Co., which operates a large portion of the surface lines in New York City.

Mr. WARREN. Now, Gen. Tripp, with that experience, which apparently has been continuous, will you tell the commission what the tendency in the street-railway industry has been during the last few years—say, since the outbreak of the European war in 1914?

Gen. TRIPP. It is more than a tendency. It has been a rapid progress toward bankruptcy.

Mr. WARREN. And what has been the cause of that—or causes?

Gen. TRIPP. The principal cause—and all other causes are minor in importance—was the decreased purchasing power of the dollar.

Mr. WARREN. And as regards this particular industry, why could not that be met by an increased price for the commodity sold by the companies, the price of transportation?

Gen. TRIPP. Because the fares had been fixed either by franchise requirements or by popular impression that such a fare was standard forever at 5 cents.

Mr. WARREN. And, as you say, the result has been that a great many of the companies are on the verge of bankruptcy?

Gen. TRIPP. Not only on the verge of bankruptcy, but some of the larger companies are already in bankruptcy.

Mr. WARREN. Can you illustrate, by any particular company with which you are connected, what the results have been in the last few years?

Gen. TRIPP. There is only one company concerning which I feel at liberty to speak in detail.

I have an intimate acquaintance with the situation in Chicago, because I participated in the reorganization of the North Side street railways into what is now the Chicago Railways System. I also acted for the bankers in the consolidation of the elevated lines in Chicago, but concerning the situation regarding those companies I do not feel at liberty to speak.

There is, however, one company which presents perhaps all of the angles of the question, which I had an intimate knowledge of, and which now being in the hands of a receiver, I see no impropriety in telling the story about.

Mr. WARREN. What is that company?

Gen. TRIPP. That is the New York Railways Co.

Mr. WARREN. That is the company operating certain of the surface lines in New York City?

Gen. TRIPP. Yes, sir.

Mr. WARREN. Now, tell the commission the history of that company and the effect upon it of this reduced purchasing value of the dollar.

Gen. TRIPP. Yes, sir.

The New York Railways Co. is a successor company to the Metropolitan Street Railway Co., which went into the hands of a receiver in 1907. The Metropolitan Street Railway Co. operated all the surface lines on Manhattan Island and the Bronx. Receivers were appointed, I believe, in 1907, and they found the system composed to a large extent of leases, among which were the Third Avenue lines, the Second Avenue lines, the belt lines, and perhaps one other. These leases which I have just mentioned the receivers dropped from the

Metropolitan receivership; whereupon they also went into the hands of separate receivers.

The securities which were defaulted at that time were two issues of bonds, one a 4 per cent refunding bond and a 5 per cent general mortgage collateral trust bond. Each of those classes of securities organized their own reorganization committee. It seemed wise at an early date in that receivership for them to join issue, and a joint committee on reorganization of the Metropolitan Street Railway was organized; and I became chairman of that reorganization committee.

In 1911, a reorganization plan was promulgated and accepted, under which all the securities which were issued, both of the Metropolitan company itself and the securities of the leased lines which still remained in the system, added together, made an aggregate amount of less than the physical valuation of the property as valued by Ford, Bacon & Davis, and as verified by myself.

The classes of new securities consisted of a real-estate and refunding 4 per cent bond. I do not just recall the amount, but it was the only fixed charge upon the new property and, in my then opinion and in the opinion of all those connected with the reorganization, constituted a security which would be safe against almost anything but an earthquake.

An issue of income bonds was also put out—those bearing interest at 5 per cent—and in my estimates I told the reorganization committee that I believed that those bonds would pay 3 per cent for the first year, 4 per cent for the second year, and 5 per cent for the third year of the operations of the company.

The stock, which was reduced in amount from \$56,000,000 to about \$7,500,000, was issued to the Interborough Metropolitan Co., which had been a stockholder of the Metropolitan Co. before the receivership, upon the payment by them of an assessment of cash. I do not recall now what that assessment was. However, the total amount of the securities was not scaled by a figure which represented the difference between \$7,500,000 and \$56,000,000, but it was something less, because the income bonds and other bonds had been issued to other classes of creditors, notably the tort creditors, those who had claims against the system for personal injuries. Their claim was paid in the same class of securities and in the same amount that the original 4 per cent bondholders of the Metropolitan Street Railway Co. received.

The result was that the securities of the Metropolitan system was scaled something like \$40,000,000, as I recall it; and, as I say, the total of all securities of all the lines now in the New York Railways system was less than the physical value of the property as appraised and as verified by me.

MR. WARREN. Gen. Tripp, may I interrupt you at that point to ask you: Did that appraisal include any value for the franchises of any of those lines?

Gen. TRIPP. No, sir.

MR. WARREN. That made up the new company?

Gen. TRIPP. No, sir.

MR. WARREN. Those so-called and perhaps actual perpetual franchises in them received on value in that capitalization?

Gen. TRIPP. They received no value in that capitalization.

Mr. WARREN: So that the capitalization was, perhaps, less than if the property had been then built for the first time and capitalized at that time?

Gen. TRIPP. Yes.

Mr. WARREN. And that was in 1911?

Gen. TRIPP. That was in 1911.

As I recall it, the properties were turned over to the New York Railways on January 1, 1912.

Under the provisions of the reorganization agreement, the income bondholders, which had a class of security that was comparable to that of a preferred stock, required a representation on the board of the new company. There were nine directors, and the income bondholders were entitled to four out of the nine; and I went on the board of directors as one of the four representing the income bondholders.

My recollection is that we did pay 3 per cent on the income bonds, as estimated.

The directors, of which I was one, thought it wise to set aside certain reserves, or to build up certain reserves, against accident claims, and I, for one, coincided with the instructions that had been given us by the Public Service Commission of New York to either expend in maintenance or set aside each year a sum which would equal 20 per cent of the gross earnings.

If these two things had not been done, the result would have shown a full 5 per cent on the income bonds.

The holders of the income bonds became impatient because we set aside those reserves claiming, with considerable justice, that if they did not receive income at the present time, they never would receive it, because it was not cumulative. So they waited upon me and other members of the board of directors representing those bonds, and insisted that we pay out the full net earnings. We declined to do it on the ground that it was not good business, although we sympathized with their desire to receive the earnings while they could. Whereupon, a campaign for proxies was instituted at the next annual meeting, and myself and three associates were ousted from the board.

The New York Railways Co. would have gone along on about the basis we estimated if it had not been for the war. Due to the increased expenses, which are the result, in my opinion, of the decreased purchasing power of currency all over the world—it is not peculiar to this country alone; and parenthetically, I might say I believe it is a condition more or less permanent—due to this, the New York Railways Co. was unable to earn the interest on the real-estate and refunding 4 per cent bonds, which, in 1912, we thought were proof against anything that could happen to the street railway business in New York.

I think that is a fairly complete story, except something might be said regarding the leased lines.

The New York railway system is to-day composed of perhaps 8 or 10 different corporations, their control over them being through the medium of leases. Some of those leases bear a high rate of dividend. I think there is one that is as high as 17 per cent. The others average, I believe, about 9 per cent, but the capitalization of these leased lines is comparatively small. They were leased in the early days when a comparatively small investment had been made, and all the invest-

ment that has been made since in those companies has been made out of the money of the Metropolitan system or the New York Railways and expended on the property of these leased lines. Therefore, the lease rentals are of a character which would make no difference whatever in the result, because they are, in amount of money, a very small proportion of the whole.

Mr. WARREN. As a result then, of the increased cost of street-railway operation, all the securities of this reorganized company being capitalized on the basis that you have stated, that is, at less than the physical value of the property itself, the company has been unable to receive recently anything upon those securities in the way of return?

Gen. TRIPP. Yes, sir.

Mr. WARREN. And even the underlying security of these real-estate bonds, the interest on those has been defaulted?

Gen. TRIPP. Yes, sir.

Mr. WARREN. And that is what precipitated receivership?

Gen. TRIPP. Yes, sir.

Mr. WARREN. Do you happen to know, Gen. Tripp, whether Judge Mayer in the United States court has already segregated certain of the leased lines from the system?

Gen. TRIPP. He has within a week issued an order dropping the Eighth Avenue Railroad out of the system.

Commissioner GADSDEN. What is going to be the effect of that, General?

Gen. TRIPP. The effect on whom, Mr. Commissioner?

Commissioner GADSDEN. On the public.

Gen. TRIPP. The effect on the public will not be so serious, in view of the fact that, as I read in the newspapers, the Eighth Avenue line was dropped with the provision that the transfer privilege or exchange of transfers between it and the remaining connections of the system should still exist on the same terms.

Mr. WARREN. If, however, the courts should hold that the cancellation of that lease left the Eighth Avenue Co. free to make its own rates up to 5 cents, then the car-riding public would lose the advantage of the uniform system?

Gen. TRIPP. Precisely.

Mr. WARREN. So far as that line is concerned.

Gen. TRIPP. Precisely. It would cost them more, and everybody would be greatly inconvenienced.

Mr. WARREN. Yes.

Commissioner GADSDEN. Is the Eighth Avenue line equipped to generate its own current and operate its own road?

Gen. TRIPP. It has no power-house of its own.

Commissioner GADSDEN. It would have to purchase power, then, from the Railways Co.?

Gen. TRIPP. It could either do that or purchase it from the Edison Co.

Commissioner GADSDEN. Do you think they will be able to get it on just as advantageous terms as they have been getting it as an integral part of the New York Railways now?

Gen. TRIPP. No.

The CHAIRMAN. Does that company have its own equipment?

Gen. TRIPP. It has no equipment left of the original equipment. My recollection is that the lease provides that the equipment shall

be returned in as good condition as when leased—which might operate to force the New York Railways to equip the line to a certain extent.

The CHAIRMAN. How many miles are there on the Eighth Avenue system?

Gen. TRIPP. How many what?

The CHAIRMAN. How many miles.

Gen. TRIPP. It is a double-track line, extending the whole length of Eighth Avenue, and running down to one of the ferries—the Christopher Street ferry. I should judge there were 12 miles of track.

Commissioner GADSDEN. You say there are 10 other leases of that character—8 or 10?

Gen. TRIPP. To the best of my recollection, I would say there are 10 other leases—not of that character; not of that same character, but 10 other leases.

Mr. WARREN. I presume, Gen. Tripp, that the rental on those leased lines also was stopped, was it not?

Gen. TRIPP. No. As to those leased lines that still remain in the system, the rentals are being paid by the receiver.

Mr. WARREN. And on this line which has been abandoned the rental has been stopped?

Gen. TRIPP. That rental ceases, naturally.

Mr. WARREN. Now, under an order of the public-service commission, a 2-cent charge was permitted on transfers recently, was it not?

Gen. TRIPP. Yes, sir.

Mr. WARREN. On the system?

Gen. TRIPP. Yes, sir.

Mr. WARREN. And if that does not continue as respects this line which has been separated, then the transfer passengers, instead of paying 7 cents, will be obliged to pay the sum of the two independent fares, which at the present time would be 10 cents?

Gen. TRIPP. Yes, sir.

Mr. WARREN. Would you say that that situation had resulted entirely from the reduced purchasing value of the nickel, or, to state it in another way, from the increased cost of labor and materials and operating expenses generally?

Gen. TRIPP. Yes, sir.

Mr. WARREN. And which was something which was entirely unforeseen when the reorganized property was launched?

Gen. TRIPP. Yes, sir. Of course, we acted—and we were all living in a fool's paradise in the street-railway business and we suddenly woke up, when the war woke us up, to find that no business which can not increase its revenue under any conditions can live or is sound. The street-railway credit, in my opinion, can never be restored under the present system of relationship between the municipalities and the companies. It is necessary to have a credit on a basis that is good not for two years or three years, but for long periods. Capital stock never falls due. Bonds usually run for from 20 to 30 years, and in order to attract private capital into that class of securities hereafter, there must be a basis of relationship which will reasonably assure the investor that for the period for which they are to use his money, there is a reasonable assurance that he will receive a return, and that he will be protected against unforeseen and unusual things, such as this war has brought about.

Mr. WARREN. Would you say that the experience of this company which you have given as an illustration of your general statement is fairly illustrative of the probable fate of all conservatively capitalized street railways, limited by a fixed maximum rate of fare, or, we will say, a fixed maximum rate of 5 cents?

Gen. TRIPP. I would say that while there may be exceptions to that rule, practically all. I believe that while this commission is sitting here, there will be other large systems in large cities of this country going into the hands of receivers.

I was familiar with the Brooklyn Rapid Transit situation. As a matter of fact, I made the application for the receiver on behalf of the Brooklyn Rapid Transit Co.

Mr. WARREN. That is an elevated company, is it not?

Gen. TRIPP. Yes.

There was a company which had, as I recollect it, \$5,000,000 net surplus for its stock only a year or two ago. It has entirely disappeared.

Mr. WARREN. By "disappeared"—these increased costs have absorbed it, you mean?

Gen. TRIPP. Yes.

The rapidity with which net profits on electric-railway companies have gone during the last year is the most astounding thing that I have ever seen in my business experience. They have melted like snow in a hot sun, and the process is still going on.

As the witnesses have told you yesterday, the full effect of the raise of wage by the War Labor Board—and I entirely subscribe to the raise of wage by the War Labor Board. It was unavoidable; labor must get more wages; it can not be avoided; the depreciation of currency has made it necessary that those who have no margin upon which to go, like labor, at once receive relief, and the situation is here to stay so long as the present condition of depreciated currency exists—therefore the War Labor Board acted properly in raising these wages, and the unfortunate situation of the street railway, which is unique in itself—probably it may be the only industry in the United States that is in that situation, where they could not get an additional cent of income to compensate them for these increased expenses—is a condition for which no one is to blame except, perhaps, the investors or early promoters of these companies, who could not look far enough into the future to see that it was a fallacy and a fundamental error to invest money in a project where it was impossible to increase your income. However, that was universally done, and we can only regret it now.

Nor can the public utility commissions be blamed for not acting immediately. They require evidence; they move slowly. In some cases, they have afforded relief.

Therefore the street-railway industry stands to-day unique in the United States. There is nothing comparable with it.

To illustrate how I regard the value of street-railway securities, Westinghouse, Church, Kerr & Co., a company of which I am the president, owned practically all of the securities of a certain company in Colorado, and I sold that company, or rather, gave the stock away, without the payment of one cent, if the purchaser would pay the notes which the company owed Westinghouse, Church, Kerr & Co. for borrowed money.

Now, when you consider that the stock represented in that transaction physical value, you can see that we had reached the stage where we were willing to charge it off our books. I, for one, did not care to go into the fight of abandoning street-railway service in a community which had had it for many years; nor did we have the organization to handle it. We were not street-railway operators. We acquired it because we had to acquire it for a debt. This was a combined company—electric light and power and street railway—and if the purchaser of those securities, or if the man who accepted the gift of that stock will cut out the street-railway system and abandon the service, he will have a profitable property on his hands, and will have made a good trade.

Mr. WARREN. Through retaining the lighting end of it?

Gen. TRIPP. Through retaining the lighting end and power end of it.

Mr. WARREN. Reverting to the question of credit, Gen. Tripp, do you think that the investing public is now aware of the effect of this limitation upon income to such an extent that it will be impossible in the future, with a fixed limit substantially higher perhaps than 5 cents, to rehabilitate the credit of the companies?

Gen. TRIPP. It is not, to my mind, so much a question of what the individual investor feels about it. The individual investor usually invests upon the advice of his bankers, but there is no doubt but what the bankers of the country are thoroughly familiar with and thoroughly alarmed over the situation.

Mr. WARREN. And any remedy ought to involve the elimination of the fixed maximum?

Gen. TRIPP. No other solution, in my opinion, would be adequate, even if cities should remit all taxes, and relieve the street-railway companies of the burdens of paving and all charges of that character. It would not affect the real situation. In the first place, the amount involved is not sufficient to make up the difference and, in the next place, it is attacking the symptoms. Even permission to increase the fare on the basis of the present relationship is entirely inadequate. That does not solve the problem. The problem is one which requires a sound basis upon which to rest, but which permits of different solutions in different localities. Some communities may require a street-railway service that the population in itself would not warrant, and perhaps it would be impossible to assess a fare high enough to produce sufficient net. In those particular localities, if they desire such service, the remedy is through taxation to support it, or some other methods. Zone systems may be desirable in some cases. And so, I think, the basis must be fixed upon which these various solutions may rest.

Mr. WARREN. So it is not only a matter of possibly higher fares, but a matter of relations between the company and the car-riding public that it serves?

Gen. TRIPP. I think a new scheme of relationship must first be devised.

Mr. WARREN. Do you happen to know, Gen. Tripp, whether what I have heard this morning that surface lines have gone into the hands of a receiver, is correct?

Gen. TRIPP. Yes, sir; but as I understand it, there are some lines that have not gone in. I have forgotten just the make-up of those

corporations over there. The Brooklyn Rapid Transit is in the hands of a receiver.

Mr. WARREN. That does not involve surface lines?

Gen. TRIPP. That involves some surface lines.

Mr. WARREN. I understood that some more surface lines had, within a day or two, gone into receivership.

Gen. TRIPP. Well, that may be. I have not heard of it.

Mr. WARREN. I think that is all I want to ask Gen. Tripp. If any of the commissioners wish to ask him any questions, I hope they will, because, if I do not undertake to cover all the matters that may interest different members of the commission, I hope they will feel free to ask the witness any questions which will help them to study this very difficult problem.

Commissioner SWEET. Gen. Tripp, it has been said that there are three parties interested very deeply in this question—the public, the employees, and the company.

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Do you see any valid reason why there should be any antagonism among these three elements?

Gen. TRIPP. Not if a proper relationship has been established.

Commissioner SWEET. In order to bring about the condition that you think is the only one that will guarantee the successful operation of the roads hereafter, can you see any other possible solution of this question than the bringing together of these three interested elements in a full spirit of cooperation?

Gen. TRIPP. There is no other solution.

Commissioner SWEET. How do you account for the prejudice in the public mind against these railway corporations? There is such a prejudice, is there not?

Gen. TRIPP. Yes; and it is perfectly clear why it should exist. The Metropolitan Street Railway Co. was largely overcapitalized.

Commissioner SWEET. And overcapitalization is one of the reasons why the public is prejudiced against these companies?

Gen. TRIPP. Yes. Large fortunes were made.

Commissioner SWEET. Yes?

Gen. TRIPP. They were made, however, out of capitalizing the future and selling the securities, and not out of the 5-cent-fare rider. The 5-cent fare never produced more than a fair return upon the fair investment of the property. But hopes were capitalized, and hopes were sold, and the investors have lost money. But the car riders have not paid for it.

Commissioner SWEET. As another element of prejudice and feeling on the part of the general public against the corporations, has there not in the past been a great deal of dishonest manipulation of common councils and public officials on the part of the companies?

Gen. TRIPP. There was no doubt about that, in the early days. I think of late years that has not been so.

Commissioner SWEET. But that created a feeling in the public mind that has to some extent remained up to the present time; did it not?

Gen. TRIPP. Precisely.

Commissioner SWEET. With regard to the discounting of the future that you have spoken of, the overcapitalization, that is what the people generally speak of as "watered stock"; is it not?

Gen. TRIPP. Precisely.

Commissioner SWEET. The individuals who were chiefly responsible for that, and who made money out of it—are they still in the business; or, for the most part, are they out of it; and have they turned over the capital to innocent purchasers?

Gen. TRIPP. Of course, that question is a general question, and there may be exceptions.

Commissioner SWEET. Oh, undoubtedly.

Gen. TRIPP. I should say it would be found that very few of these electric-railway securities will be found in the strong boxes of the estates of the men who originally promoted them.

Commissioner SWEET. Who are the present owners of street-railway stocks?

Gen. TRIPP. The public, the small investor, the insurance company; in Massachusetts, to some extent, the savings banks.

Commissioner SWEET. You are speaking now of stocks exclusively, or stocks and bonds?

Gen. TRIPP. No; I was speaking of bonds, principally.

Commissioner SWEET. Of bonds?

Gen. TRIPP. The public also owns the stock.

At the time of the reorganization of the Metropolitan Co., I met many of the smaller security holders and, as an example of the deplorable situation that has been brought about by receiverships, I remember the case of an old lady, about 70 years of age, who came into my office, having \$10,000 of the 5 per cent bonds of the Metropolitan Street Railway, which were in default, and, of course, she had received no interest.

She told me that her husband, who was about her age, had been an invalid for many years. They had lived together in a little house out in the country, and they had their money in a savings bank, on which they were getting \$350 or \$400 a year income. It was pretty close manipulating for the old couple to get along, and she concluded that she would invest in these 5 per cent bonds. Her husband was an invalid, and she did not want him to have the worry of a change of investment, but she felt sure herself. So she drew the money out without his knowledge, and invested in these bonds and they had nothing whatever to live on.

That was the most affecting case that came to my attention, but I met many people who could not afford to lose the money.

Commissioner SWEET. Do you think, General, that that fact is quite commonly understood by the general public?

Gen. TRIPP. No; I do not think it is.

Commissioner SWEET. Now, the employees, you said in your direct testimony, were entitled to the raise given by the War Labor Board, in your judgment.

Gen. TRIPP. In my judgment they were.

Commissioner SWEET. And the wages can not reasonably be reduced?

Gen. TRIPP. No, sir.

Commissioner SWEET. So that, as far as the employees are concerned, no relief can be expected from the situation that exists by reason of reducing their compensation?

Gen. TRIPP. No, sir.

Commissioner SWEET. And it would not be right, in your judgment, to consider it from that standpoint?

Gen. TRIPP. No, sir.

Commissioner SWEET. That, then, would leave the problem one to be solved between the general public and the corporation, would it not?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. And there would possibly be two solutions there—one that the corporation should lay down entirely and go out of business, and let the general public do what it saw fit, or else make some arrangement with the general public, the municipalities, by which municipal ownership and operation might take place?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Or, if preferred by the general public, to have private ownership and operation, then arrangement would have to be made between the corporation and the general public that would be mutually satisfactory; and that would contain in it the elements that you have stated as essential to the continued success of private operation of these companies. Is not that right?

Gen. TRIPP. That is exactly as I believe, sir.

Commissioner SWEET. Now, upon what basis do you think the general public and the corporation can meet in order to bring about the condition that would permit of continued private ownership and operation of these companies?

Gen. TRIPP. I believe that some form of cost-of-service plan—

Commissioner SWEET. Will you explain that term “cost of service?” It is often used.

Gen. TRIPP. Well, Mr. Commissioner, I am not an expert in the various plans of cost of service which have been submitted but it is based upon this theory, as I understand it, at least, that is the kind of cost of service that I mean; I do not know whether it is what the experts call “cost of service.” It is that the income of electric railways shall be sufficient to pay a proper wage to the workmen and the cost of operation, properly provide for depreciation and obsolescence, and to pay for the money actually and honestly invested in the property a fair and just return. If the fare is fixed so that a larger return than that is received, then the surplus may be treated in various ways. I believe that in order to get efficient operation, to have personal initiative and to have proper economy in operation, it will be necessary to say to private capital, “If there is a surplus, you shall receive a portion of it for an incentive to do good work.” The remainder could go to the public.

Commissioner SWEET. In the shape of reduced fares?

Gen. TRIPP. Yes; but that would not operate immediately each year. As the surplus was accumulated over a period of years, it could operate to reduce fares. Some cost-of-service plans, as I understand it, make the participation of the company in the surplus larger as the fare is decreased, furnishing an incentive to them to work toward decreasing the fare.

Commissioner SWEET. Yes.

Gen. TRIPP. I do not myself feel that it would be wise to make a direct participation for labor in this surplus, because it is too uncertain. Labor should be paid for it all that can fairly be paid for it.

The return should be steady and fixed, and if a surplus is accumulated that permits an increase of wages, well and good; but to have them participate in an uncertain amount, I believe would prove unsatisfactory.

Commissioner SWEET. By what method could this arrangement that you speak of be affected—by legislation, State laws, or some sort of agreement between the companies and the municipalities, or in what practical way?

Gen. TRIPP. Well, I have believed that if this commission should make a strong and unequivocal recommendation that, in their opinion, for example—if they did believe it—some fundamental plan of that kind was necessary to save the industry, that with that, each company could go before their properly constituted authorities—before the municipalities in some States, where they have not commissions, or before the commissions where they have commissions—and a satisfactory arrangement could be made. The municipalities and the public-service commissions would be glad to do this if they felt that public opinion was behind such a plan.

Commissioner SWEET. So, in your judgment, the real solution of the whole problem goes back to the matter of creating a sound and correct public sentiment on the subject?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. And that means the eradication of a number of ideas that have come down from the past in the way of prejudices that might be removed if the facts were fully understood. Is that your opinion?

Gen. TRIPP. Yes, sir; that is my opinion.

Commissioner SWEET. I think you said in your direct testimony that, in your judgment, the elimination of taxes, direct and indirect, we will say, would not afford a proper and perpetual solution of the problem.

Gen. TRIPP. Yes, sir.

Commissioner SWEET. In your opinion, would it be just that the custom in regard to paving between the tracks and little outside should be changed? Do you think that is a—

Gen. TRIPP. I think that is an unjust burden, per se.

Commissioner SWEET. An unjust burden?

Gen. TRIPP. On the properties; yes, sir.

Commissioner SWEET. How did that originate? When was the beginning of that as a custom?

Gen. TRIPP. It was a part of the inducement which the early promoters, in some cases, held out, and it was also, in some cases, a requirement on the part of the municipalities, until it gradually, perhaps—no one can say—became an established policy.

Commissioner SWEET. Was there not a certain element of justice in it in the old horse-car days?

Gen. TRIPP. Yes; there was to that extent, and it was to some extent a relic of the old horse-car days.

Commissioner SWEET. Have you not found, General, that office seekers—candidates for official positions in cities—have made it quite a point in the past to decry the public-service corporations—the public-utilities corporations—and found it a very good way to get votes.

Gen. TRIPP. Oh, yes; undoubtedly.

Commissioner SWEET. And, as a corporation man, you think that is all wrong?

Gen. TRIPP. I do, yes, sir; decidedly.

Commissioner SWEET. That situation, however, has taken into account the prejudice that we spoke of a few minutes ago; has it not?

Gen. TRIPP. Exactly.

Commissioner SWEET. Against these corporations?

Gen. TRIPP. Yes, sir; exactly.

Commissioner SWEET. Created to some extent by their own dishonest conduct in trying to influence officials to do what is wrong?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. That is true; is it not?

Gen. TRIPP. In some cases. I do not state—

Commissioner SWEET. And overcapitalization in other cases?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. If the general public and the corporations are to get together, there is no doubt, in your mind, I presume, but that every single fact known to the corporations must be honestly and squarely presented to the public?

Gen. TRIPP. Oh, it must be. There is no other course.

Commissioner SWEET. And on this cost proposition there would be perpetual need, would there not, for public inspection of the books of the corporation?

Gen. TRIPP. That follows naturally.

Commissioner SWEET. The public would have to know exactly what was being done?

Gen. TRIPP. They would have to know.

Commissioner SWEET. By way of receipts and expenditures?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. And you would have a representative or representatives of the public on the board of directors of the company?

Gen. TRIPP. I have not thought that far. They certainly must know. My only hesitancy on that point is whether a representative of the public on the board would perform the duties in such a manner as to expedite and encourage the efforts of the management in bringing about efficient operation and economies, or whether he would regard his presence on the board as representing an antagonistic element. But there must be, whether it is a representative on the board of directors or brought about in some other way, a full knowledge of the affairs of the company, full control and regulation, and it may easily be that a careful consideration would show that in this new relation it would be necessary to have a representative of the public on the board. But, as I say, I approached that particular thing with some hesitancy. Boards which are divided among themselves and do not arrive at a unanimous and harmonious conclusion upon everything that is brought before them certainly harm a company and its prosperity.

Commissioner SWEET. Going back to the paving proposition—in your judgment do the owners of automobiles now, under the present system, pay for any part, directly or indirectly, of the paving between the street-railway tracks?

Gen. TRIPP. No, sir; except so far as the State automobile license tax would apply to that, in some cases.

Commissioner SWEET. How is it with regard to paving with the street-railway companies? Do they pay for it?

Gen. TRIPP. Do they pay for the paving?

Commissioner SWEET. Yes, sir. In other words, does it come out of their nickels?

Gen. TRIPP. Yes; it comes out of their nickels.

Commissioner SWEET. Is it a fact, then, that under the present system one part of the community—the part least able to bear it—pays for that paving of the streets, and the automobile owners—the part presumably the best able to bear it—are relieved of that burden?

Gen. TRIPP. Absolutely.

Commissioner SWEET. Do the automobile owners get any benefit of that paving?

Gen. TRIPP. Yes; they do.

Here is a very amusing incident, if I may be permitted to refer to it. I am told that in Boston the automobile owners complained because there was no place to park their automobiles on Charles Street, and the city authorities took a portion of the common, or of the public ground—I have forgotten which, as I have not seen it—and widened the street at that point to about 20 feet—paving the street—and paid for it, and turned it into a place where automobiles might be parked, when running right in front of them along the same street is the street-railway company, which is paying for the maintenance of the paving over which it runs.

Commissioner SWEET. Do you regard the automobile and the jitney as responsible to some extent for the present situation?

Gen. TRIPP. Yes.

Commissioner SWEET. But, if I understood you right in your direct examination, you do not regard them, by any means, the sole culprits?

Gen. TRIPP. No.

Commissioner SWEET. Now, with regard to the increase of fare, if I understood you correctly, you think that that would not be a panacea for the trouble?

Gen. TRIPP. It would be temporizing, Mr. Commissioner. It might solve the question for to-day in a particular case, but if it is fixed, and there is no provision for prompt readjustment of it to meet changed conditions of finance or operation, you may in another year, be just where you are to-day, with a new rate of fare.

Commissioner SWEET. In other words, do you think there should be greater elasticity in the system?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. To adapt itself to changing conditions?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Would this be a further reason why the raise of fares might not afford the necessary remedy, that sometimes the raising of fares diminishes the patronage to such an extent that the income received is not really increased?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Is not that true?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Would not that be particularly true with regard to the distances, the short runs?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Where people could walk readily if they desired to do so?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. And perhaps would, rather than pay the increased fare?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Do you regard the present prevailing system of charging the same amount for short hauls and long hauls as just?

Gen. TRIPP. No; I do not regard it as just.

Commissioner SWEET. Is it good business?

Gen. TRIPP. It is not good business.

Commissioner SWEET. Well, how would you change it?

Gen. TRIPP. Of course, the only change that I know about would be a zone system, such as is universally used almost all over England and the Continent.

Commissioner SWEET. How is it working there?

Gen. TRIPP. Working perfectly well.

Commissioner SWEET. Will you describe that zone system, so we will understand more fully what it is?

Gen. TRIPP. A zone system simply consists in certain zones. After you pass out of one zone into another you pay an additional fare. The fare in England, in the shorter zone, is low. I just do not recall what it is, but it is less than 5 cents, or its equivalent.

Commissioner SWEET. Yes.

Gen. TRIPP. But it increases as you go out into the suburbs.

Commissioner SWEET. Would not that necessitate a great deal of bother and annoyance that Americans would object to?

Gen. TRIPP. That is the objection. It is not based on sound economics and it is not just, but it is the custom in this country.

Commissioner SWEET. You mean the present system?

Gen. TRIPP. Yes; the present system.

Commissioner SWEET. But I am speaking of the zone system, and I am asking you whether Americans would not rather object to paying these small amounts as they pass from one zone into another.

Gen. TRIPP. Well, I don't know. They are becoming more or less educated to do it on interurban lines and, I have heard, some cities have recently adopted it. I do not know how it is working. My impression has always been that they would object, but I have never known of its being tried in a large community; so I do not know that it has ever been proved that they would object.

Commissioner SWEET. But you think that that is a just and a business way of handling it?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. How about general taxes? Do you think that the street-railway companies ought to be taxed on their physical property?

Gen. TRIPP. Under the present theory of relationships, there is no reason why they should be taxed.

Commissioner SWEET. Is there any consideration, do you think, which should be taken of the value of their franchises?

Gen. TRIPP. For purposes of taxation?

Commissioner SWEET. Yes.

Gen. TRIPP. No, sir.

Commissioner SWEET. Merely the physical properties?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. That should be assessed on the same general basis as other properties owned by private individuals?

Gen. TRIPP. Yes, sir.

Commissioner GADSDEN. General, on the present basis do you think the present franchises have any value on which to base taxation?

Gen. TRIPP. No, sir.

Commissioner SWEET. They are rather negative, are they not?

Gen. TRIPP. Precisely. They are decidedly negative.

Commissioner SWEET. Do you see any practical way of diminishing the expense of operation of the street railways?

Gen. TRIPP. No, sir; I can not.

Commissioner SWEET. Do you think that the last word has been said on that subject, practically?

Gen. TRIPP. So far as I can see; yes, sir.

Commissioner SWEET. The charts that have been shown us have brought out a rather interesting point in regard to the peak of the load, that where there are great variations at different times of the day, a problem arises that is hard to solve and results in less profit to the company. That is true, is it not?

Gen. TRIPP. That is true; yes, sir.

Commissioner SWEET. Can you think of any way that might be met that would be just to the general public and bring about better results?

Gen. TRIPP. No; I can not think of any way. Experiments have been tried of low fares during nonrush hours to fill up the valleys but, so far as I have observed, they have only demonstrated that people won't ride unless they want to. They won't go down town unless they have business down town, and those experiments have been unsatisfactory; at least all that have come under my notice.

Commissioner SWEET. So it is necessary for the companies to have the equipment required by the highest point, and then at other times of the day to leave that practically idle.

Gen. TRIPP. Yes, sir.

Commissioner SWEET. What is the custom in regard to employees in cases of that kind? Are the conductors and motormen on these cars that are not used in the quiet part of the day idle, too?

Gen. TRIPP. No; there is a great deal of lost time that is paid for. In other words, time that is not represented by platform service. Attempts are made, of course, to put in swing runs, as they call them, and so they utilize to the greatest extent possible the time of the men.

Commissioner SWEET. In trying to show the general public that the companies were doing what was right and fair, would you consider that the capital stock of the companies as it now stands throughout the country should be the basis for earnings or that the value of the physical properties should be the basis for earnings?

Gen. TRIPP. I do not think you can take the stock as it now stands as a basis for earnings allowed under a new relationship, if that is what you mean.

Commissioner SWEET. Yes.

Gen. TRIPP. However obnoxious it may be to some of us who are in the business, I see no other method than to base it on the in-

vestment of the property, regardless almost of the securities that are outstanding.

Commissioner SWEET. Would you mean the original honest investment or the present value of the property?

Gen. TRIPP. I believe—and here I am expressing only my own personal belief; I do not wish to commit the Committee of One Hundred on this point—I believe that the fair method is to take the money that has been honestly invested in the property.

Commissioner SWEET. Going back in many cases to the horse-car days, and then through the various systems up to the present time, do you mean?

Gen. TRIPP. Well, it is not such a tremendous job as that. I do not believe that in these days you would find the investment in the horse-car lines ever put forward as a part of the cost of the present system.

Commissioner SWEET. Some of these roads, however, that are operating to-day started as horse-car systems.

Gen. TRIPP. Yes; that investment has probably been written off and disappeared in the tremendous increase in investment that has come since those days. I could determine to my own satisfaction in any property, I believe, the amount of investment that was honestly made in the property.

Commissioner SWEET. Would you arrive at that by an examination of the property itself, and take your own knowledge of the transitions that have been gone through, and perhaps add a little something to it, and fix the amount in that manner?

Gen. TRIPP. No; I would not do it that way, Mr. Commissioner. I would take the different classes of securities that have been issued on a given property, however many there might be, and it would be easily determined how much money was received for an issue of bonds and what became of the money. These men in the early days did not steal the money. That is a popular fallacy. There was no money taken. The money went into the property. Securities were issued, however, on "general hopes". They issued "general hopes 5's", if you please, for which no cash was received. Now, it is easy to segregate that class of security from the class of security that was honestly sold for cash, and it does not require a valuation of the property in minute detail to arrive in any given case at a fair investment in a given property upon which to rest a new relationship between the public and the company.

Commissioner SWEET. Do you think it would be easy to demonstrate to the average citizen that an arrangement ought to be made with these companies that would enable them to make profits upon property that was not liable to taxation?

Gen. TRIPP. I do not quite follow that question, Mr. Commissioner.

Commissioner SWEET. I assume from what you have just said that your method of arriving at the value of a street-railway property would bring about the result that something more than the physical value of the property would be allowed to the company upon which, under the plan that you have suggested, the company would be permitted to pay dividends.

Gen. TRIPP. I have not intended to convey the impression that I meant anything more than the physical value of the property, or

rather, the cost of this property; it may not be the physical value today, it may be more or less.

Commissioner SWEET. I see. I got the idea from what you said that, figuring the actual amount that went in to the property——

Gen. TRIPP. Yes.

Commissioner SWEET. Would be something more than the physical valuation of the properties at the present time.

Gen. TRIPP. No, I did not intend to—I do not think so.

Commissioner SWEET. It might just at the present time, based upon higher priced material and labor; perhaps the physical value of the properties would exceed the cost, figuring on the basis you have in mind.

Gen. TRIPP. Yes, it might.

Commissioner SWEET. In some cases.

Mr. TRIPP. Yes, it probably would, on the cost of reproduction at present prices.

Commissioner SWEET. Of course it would be necessary for the general public to be satisfied as to the amount upon which dividends were to be paid, would it not?

Mr. TRIPP. Yes, absolutely.

Commissioner SWEET. What plan would you suggest as being the most satisfactory for the determination of that amount?

Mr. TRIPP. From the standpoint of the general public?

Commissioner SWEET. You have to satisfy the general public before you can do anything, have you not?

Gen. TRIPP. Well, I believe the general public will understand the simple proposition that the amount we are allowing here upon which money shall be earned is the money that has actually gone into the property, better than they will if you undertake to explain that this valuation has been made upon a complicated cost-to-reproduce plan. You have then to go into explanations: What prices are you using in your value, cost to reproduce, existing prices, average prices, prices before the war; and you get into such a maze of theories and testimony that the general public throw up their hands at and say we do not understand anything about it. But they do understand they are entitled to a return upon the money they put into the property.

Commissioner SWEET. You think, then, the public would be satisfied with the report of an expert accountant who might examine the books of the company?

Gen. TRIPP. It is hard to say what the public would be satisfied with. They do not believe very much that the street-railway interests tell them, unfortunately. I think——

Commissioner SWEET. How would it do for the municipal authorities to name a committee either of their own members or of citizens, or both, to investigate that subject? Because it is one that would have to be settled before any basis could be reached.

Gen. TRIPP. Well, that might be a way to do it.

Commissioner SWEET. You said you thought the lower purchasing power of money was a somewhat permanent condition not only in this country but throughout the world, did you not?

Gen. TRIPP. Yes; I do think so.

Commissioner SWEET. Consequently you think that the price of material as well as higher wages is rather permanent?

Gen. TRIPP. I do; yes sir. I think that until these tremendous war debts are very largely liquidated there can be no marked reduction in prices, or rather a resumption and a return to the old value of currency. The war debts are half paid to-day by a depreciated dollar. In the very depreciation of the dollar it pays 50 per cent of the war debts, and it may be a very wise economic law and prevent great national disaster that that should happen. And until these debts have been reasonably well liquidated and taken care of I see no hope for lower prices to any particular extent.

Commissioner SWEET. So that the street-railway fares, if based upon the actual purchasing power of money, would to-day be considerably more than a nickel; would they not?

Gen. TRIPP. Oh, yes, they would be 10 cents.

Commissioner SWEET. But if I understand you right, that would not solve the problem entirely, because it would still lack the element of elasticity?

Gen. TRIPP. Precisely.

Commissioner SWEET. How would you introduce that element? How would the various changes be made under your plan to meet the varying conditions that might arise?

Gen. TRIPP. You would have to increase fares as the first step, and then—

Commissioner SWEET. That would be tentative, I suppose.

Gen. TRIPP. Tentative. And then the surplus account of the companies—the accumulated net profits of the companies—would be the governing—

Commissioner SWEET. The barometer?

Gen. TRIPP. The barometer. As we reached a higher or lower point your fares would be adjusted, not at frequent periods but often enough to keep the thing in a stable equilibrium.

Commissioner SWEET. So that whatever arrangement is made would in your judgment need to include the ability to adjust and readjust and then readjust?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. As might be demanded by changing conditions?

Gen. TRIPP. Yes. We must put the street-railway industry in the position that every other business is in—that it can adjust the price of its product to the cost of the product.

Commissioner MEEKER. You were on the subject of investment as the proper basis for determining the amount upon which earnings should be calculated. Will you elucidate that a little more fully? How is it possible to get at the actual money put into a property?

Gen. TRIPP. I think the most feasible method would be an examination into the various classes of securities that have been issued upon an electric-railway property from its beginning as an electric-railway property, and not go back into the horse-car days—that examination to develop what disposition was made of the securities, whether they were sold for cash, and if so, at what price; or, to state it in another way, at what discount. I think the history of each company, as regards its security issues, would be readily available and that that method would be more feasible than an examination of the books. The books of a street-railway company show on its asset side certain arbitrary items which are simply used to offset items upon the credit

side and do not in themselves represent in all cases investment in the property. And since these systems are thirty to thirty-five years old and many of them have been through receivers' hands and have changed hands, it would be almost an impossibility to trace through the books of account the investment in the property. While, on the other hand, as I have just stated, evidence regarding the different issues of securities is always available.

Commissioner MEEKER. Would it not be necessary to take account of the money investment in the original horse-car lines, or would you write that off as a loss?

Gen. TRIPP. Those electric railways which began as horse railways and were equipped and developed as a system starting with horse railways, like the West End of Boston for example, probably have as clear a record in regard to their securities issued in the horse-car days as they have in the electric days. I know that to be so in the case of the West End Street Railway, at least as far back as 1860, because in some litigation that was had in Massachusetts, the issue being something I have now forgotten, I was employed to report upon the security issues and what became of them—how they were disposed of—from 1860. That went back into the Middlesex Railway time. And I had no difficulty in securing information and getting a statement which satisfied the court as to the disposition of all of those securities back to 1860.

Commissioner MEEKER. Then your answer would be that in the horse-car line it will be necessary to take account of all investments, even in the horse-car days?

Gen. TRIPP. I then would like to go on a little further with my answer. There are some companies, however, that started by buying up the horse-railroad system. That made a clean start. They usually bought the horse-railroad system for less than it cost. And I do not believe that in those cases the public would be endangered if they started at that point. So where an electric railway started by buying up an existing horse railway and made a clean start I would make a clean start there also.

Commissioner MEEKER. You think it is easier and better policy to get at the investment in the way that you have indicated rather than to make a physical valuation of the properties now existing?

Gen. TRIPP. A physical valuation of the property, Mr. Commissioner, would not determine the investment. It would determine the value, and that value would be figured on some basis of prices. An arbitrary assumption would have to be made as to what period they would take for the purpose of establishing prices on such a valuation. It would be impossible to take each item of an electric railway and ascertain what the original price paid for that particular piece of apparatus was, because in the first place it does not represent the whole investment; it may have been replacement of an original piece of apparatus and the difference between the cost of the original piece and the new piece charged to plant account, while the value of the old piece would be charged to operating expense. So that there is no method of valuation which will determine the investment in the property.

Commissioner MEEKER. Will it not be necessary to make assumptions and hypotheses in getting at actual investment in the way you have indicated?

Gen. TRIPP. No; I distinguish between investment and valuation. By investment I mean the money that was spent on the property.

Commissioner MEEKER. By that you mean the money that was turned back into the improvement and extension of the road out of earnings?

Gen. TRIPP. That would be part of it. The other part would be the money received from the sale of bonds and expended on the property; the money received from the sale of stock and expended on the property.

Commissioner MEEKER. And the accounts of the railways will show all of these additions to investment, whether they are additions in the purchase of bonds and stocks or whether they are additions made out of earnings?

Gen. TRIPP. No, I do not think that the books of account of the companies, generally speaking, are in such a condition as to show that. And for that reason I have suggested that the books of account be ignored; that evidence be taken as to the securities that have been issued from the beginning on this property—what they were sold for and what became of the money. The mere fact only would be established—did the money go into the property? Having established that the money went into the property, that would be sufficient evidence to call it investment upon which a return is fair and just.

Commissioner MEEKER. Pardon me for my persistence, but I want to get this perfectly clear. There would be some record somewhere, would there not, whether it be on the books of the company or where-soever, showing property extensions or improvements made out of earnings?

Gen. TRIPP. Yes, the books of these companies would probably show that, but—

Commissioner MEEKER. You would include all of such increases in the value of the property of the company made from earnings in the investment—capital investment?

Gen. TRIPP. Yes.

Commissioner MEEKER. I would like to ask you about the economic justification for including as part of the investment, upon which stockholders and bondholders are entitled to receive income, investments that are made not by stockholders and bondholders but by the riding public.

Gen. TRIPP. Well, if you refer, Mr. Commissioner, to the money that has been turned back into the property from the earnings, I can not quite subscribe to your theory that that is an investment.

Commissioner MEEKER. I have not expressed any theory. I beg your pardon.

Gen. TRIPP. Well, I can not quite subscribe to the idea, I will amend that—I can not quite subscribe to the idea that that is an investment by the rider. The earnings that have been turned back into the property were net profits that the stockholders were entitled to. They chose, instead of taking those in cash, to put them back into the property. There is no difference between that method and a method where they had collected the dividends, put them in their pockets, taken the money out of their pocket again and purchased additional securities of the street railway in order to furnish it funds for the necessary development.

Commissioner MEEKER. Are there any limitations in any of the municipalities with which you are acquainted upon the dividends that may be paid upon stock?

Gen. TRIPP. There are some of the recent arrangements of cost-of-service plans which have such limitations.

Commissioner MEEKER. You see the drift of my question. If there were a limitation, say of 8 per cent, upon stock it would be possible for the company to earn 16 per cent, let us say, and still pay 8 per cent dividend. This is merely a hypothetical question, understand.

Gen. TRIPP. Yes.

Commissioner MEEKER. And put back into the property of the company 8 per cent. And I do not think I need to explain any further how that would be a subtle way of doing just what I have suggested might be done, making improvements in the property of the street-railway company out of the fares paid by the riding public. Is not that true?

Gen. TRIPP. Well, Mr. Commissioner, where such a limitation exists provisions are also made as to what shall be done with the surplus over the 8 per cent. And in the city of Chicago, the city entered into a contract with the Chicago railways by which a surplus over a certain dividend—I do not remember the amount—should be divided between the city and the company, the city taking 55 per cent and the company taking 45 per cent. Now, if the company chose to reinvest its 45 per cent, I think it fairly belongs to the company.

Commissioner MEEKER. Do you think it might be a fair way of getting at the property upon which income is to be allocated to the bondholders and stockholders by taking account of either appreciation or depreciation in the physical properties of the companies?

Gen. TRIPP. No, sir. My theory excludes the question of depreciation or appreciation.

Commissioner MEEKER. I want to get that clear. You spoke of the New York Street Railway Co. As I understood you, you said there were 11 leased lines, or is it 12 lines leased?

Gen. TRIPP. Approximately 10, I think I stated, at the present time.

Commissioner MEEKER. Ten, all told?

Gen. TRIPP. I think so.

Commissioner MEEKER. Including the Eighth Avenue line?

Gen. TRIPP. I would like to say I would not like to be held too closely to those figures. I am testifying from memory and I am only approximating the figures.

Commissioner MEEKER. Yes. What I wished to get at was approximately the proportion of the lines operated by the New York Street Railway Co. that are leased lines.

Gen. TRIPP. In mileage of tracks?

Commissioner MEEKER. Yes, that would be sufficient, I think.

Gen. TRIPP. My estimate is but little better than a guess, but my guess is 25 per cent.

Commissioner MEEKER. Seventy-five per cent are owned outright by the company?

Gen. TRIPP. Yes.

Commissioner MEEKER. And as I understand your statement, some of these leased lines draw high dividends?

Gen. TRIPP. Yes.

Commissioner MEEKER. Is not that rather a high interest upon bonded debt?

Gen. TRIPP. You mean does not that produce—

Commissioner MEEKER. Is it not a fixed charge on the New York Street Railway Co. in the shape of a bonded debt?

Gen. TRIPP. In so far as those high rentals exist, standing by themselves, they are high. There are only two or three which are high. Those two or three constitute such a small proportion of the total aggregate fixed charges upon the whole system that its effect is almost negligible in the whole. But viewed as a property standing by itself, the return is high.

Commissioner MEEKER. Could you submit for our information a statement or some printed document that would give us more information about this particular street-railway line, the percentage of leased lines and what that obligates the company to?

Gen. TRIPP. I will, with the permission of the receiver of the New York Railways. I am not an officer, I am not now a director, and I think I should have to get his permission, but I will do that; I will ask him.

Commissioner MEEKER. You also made the statement, as I understood it that, the 5-cent fare, generally speaking, was only sufficient to pay a reasonable return upon investment.

Gen. TRIPP. Yes.

Commissioner MEEKER. So that as a matter of fact there has been very little extension and improvement work done out of the earnings of the street-railway companies so far as you know?

Gen. TRIPP. Well, the stockholders of street railways have foregone the collection of dividends to quite a large extent and that money has gone back into the property and constitutes, in my judgment, a large sum. But that is not inconsistent with my statement that a 5-cent fare has yielded only a fair return, because they have not taken the return.

Commissioner MEEKER. The return reinvested in property was not what could be called an excessive return in any case?

Gen. TRIPP. No, sir.

Commissioner MEEKER. In regard to the zone system, you said, as I understood, that you were not aware of its being put in operation on any large system.

Gen. TRIPP. No; I am not aware of it, Mr. Commissioner.

Commissioner MEEKER. Is it not the same thing, however—the extra fares that are charged on the Massachusetts interurban lines—

Gen. TRIPP. Oh, yes.

Commissioner MEEKER. Lines that extend beyond city or township limits?

Gen. TRIPP. Oh, yes; that is in universal operation throughout the United States—the zone system on interurban lines.

Commissioner MEEKER. Is not the evidence then pretty conclusive that the American people have paid zone fares and would probably continue to pay them even on a different principle, if they were obliged to?

Gen. TRIPP. Yes, they might. As I stated, it has been the general opinion of street-railway men that the public would not stand for it,

as they say, but I do not know how they arrived at that opinion, because it never has been tried.

Commissioner BEALL. You mean within the limits of a city?

Gen. TRIPP. Within the limits of a city; yes.

Commissioner MEEKER. I presume that they argue that we are different from Europe and because they do it in Europe we can not do it in this country.

Gen. TRIPP. That may be so.

Commissioner MEEKER. I have been very greatly puzzled by the very great difference between the cities in the earning capacity of the street-railway lines. The New York Street Railway Co. is in bankruptcy. It seems to me that there is a company that should make money, if any company could make money, as it appears to me, and I have read in the newspapers recently—I do not know that that can be taken as evidence—but I have read in the newspapers that the street railways of San Francisco are very prosperous. Now the traffic conditions are somewhat different, as I conceive, as between New York City and San Francisco, yet not sufficiently different to account in my mind for the enormous difference. Can you give us any explanation of these differences, if they exist; and if they do not exist, will you tell us that they do not?

Commissioner BEALL. Did you mean, Commissioner Meeker, the lines that the city owns in San Francisco or the lines that the private company owns?

Commissioner MEEKER. I am not prepared to say, because the newspaper articles I read did not state—

Commissioner BEALL. The lines that the private company owns are not prosperous but the lines that the city owns are short lines with heavy density of traffic and have a high fare and are prosperous.

Gen. TRIPP. Different conditions do exist in different cities. There are many factors that enter into it. In New York City the cost of construction was tremendous. They have an underground trolley system. The formation of the island is largely rock foundation. In some cases they had to move the Croton water main. It cost \$500,000 to go through Union Square alone on that account. The ground under New York City is a perfect network of gas pipes, water pipes, electric conduits and everything you can imagine; so the construction of an underground trolley all over Manhattan Island was a tremendously expensive proposition, and the capitalization in that case was honestly very much more than in most other cities. That made a large capitalization. Then they were confronted with the congestion in those narrow streets which reduced the car-mile speed; I have not the figures now, but a very marked reduction in speed over what we were able to get in other cities. So the service that you got out of a car was much less; the service that you got out of the platform men was much less. Then we have the competition, of course, in that longitudinal island—avenues running up and down the island, the competition of the subway and elevated lines, which was more intense there than anywhere else.

The street railway would never have lived in New York except for the tremendous earning power per car-mile; and that offset these disadvantages, but it left it with a narrow margin. As a matter of fact, the street-railway business has existed on a narrow margin for 15 years, and it did not take much to wipe out that margin.

Now, there are other cities where the lines have not properly covered the city, where the people are not getting the service that they ought to get out of a street-railway system. The street-railway system is taking the cream. And those lines, wherever they exist, may be able to run on a 5-cent fare.

The situation in Washington here is a splendid illustration of that situation. One company can earn a return, as I understand it, on a 5-cent fare. The other company, which gives a service out into the suburbs, which serves the people, which appears to me better than the prosperous company, is penalized; it can not make a fair return because it gives a different kind of service—it sells a more expensive product.

So the factors that enter into any given locality are numerous and differ in each locality. But even the prosperous ones, if there are any left, are operating on a narrow margin.

Commissioner MEEKER. The moral for the commission is not to indulge in too broad generalizations?

Gen. TRIPP. Yes.

Commissioner MEEKER. But deal with each community according to the particular conditions in that community?

Gen. TRIPP. Yes. Generalizations are dangerous in this inquiry, except so far as they are necessary to bring out a condition which can be shown to be universal, regardless of local conditions. The street railways in general are bankrupt, regardless of local conditions. There are different degrees of bankruptcy, if you please. Some are worse bankrupt than others; some are just skinning along; some will be bankrupt within a week. But there are different degrees of it.

Commissioner MEEKER. As I understand you, in answer to Commissioner Sweet's question you said you did not think very much improvement in street-car equipment and organization was possible, at least it is not at present in sight, so that we can not look for the cutting down of the cost of the service to any great extent, so far as we are able to see ahead now.

Gen. TRIPP. No, sir; you can not.

Commissioner MEEKER. In regard to the New York City situation, would it be at all feasible, do you think, to adopt perhaps the one-man car for the surface lines—some of the surface lines that are competing with the long-haul subway and elevated lines?

Gen. TRIPP. I should think in New York City it would be about the worst place that you could operate a one-man car. At rush hours a one-man car simply could not handle some of the traffic, particularly on the downtown cross-town lines leading to Brooklyn Bridge and to the various ferries and Hudson tubes.

Commissioner MEEKER. Pardon me, may I interrupt there? I was speaking of the lines that are running in competition with the elevated and the subway lines—the north and south lines in general—and may I add here, would it be possible to run them at frequent enough intervals merely for local traffic under a zone system, so that it might relieve the elevated and subway lines and might perhaps contribute toward the solution of the transportation problem?

Gen. TRIPP. My judgment would be that it would not, generally speaking. The cars are already operated on the principal longitudi-

nal lines about as closely as they ought to run in rush hours and they could not get them any closer. And of course a car that seats 40 or 50 people will carry more than a one-man car.

Commissioner GADSDEN. You mean on account of the vehicular travel, do you not?

Gen. TRIPP. Well, they operate all the cars they can and the vehicular traffic results in cutting down the schedule, which, as I have already stated, prevents their getting the greatest use out of their equipment.

Commissioner MEEKER. Before I go any further I would like to ask for your solution of the New York situation.

Gen. TRIPP. Oh, cost-of-service plan, as I have just outlined.

Commissioner MEEKER. Well, would that involve something like a 10-cent fare?

Gen. TRIPP. That of course I can not state. That would require an analysis of how much the deficit really is, and I am not familiar with it. I have heard it stated that a 7½-cent fare might do it, but it was doubtful. I do not know that of my own knowledge.

Commissioner MEEKER. So far as the physical matter of conducting transportation is concerned, you do not see much chance for improvement over the present situation in New York?

Gen. TRIPP. No, sir.

Commissioner MEEKER. According to your present knowledge?

Gen. TRIPP. No, sir; I do not see much chance for improvement.

Commissioner MEEKER. It is a rather hopeless situation for New York then. Now just one more question. Do you think that the one-man car may aid in the solution of the transportation problems of cities other than New York? Do you think it has possibilities?

Gen. TRIPP. A one-man car, under my theory, should be considered only from the standpoint of its economy, looked at from the standpoint of the public. Will it properly serve the public. Is it all they require? And if it is a satisfactory service, it is a cheaper service; and the public ought to get its service as cheap as it can. But it is not a cure, nor is it fundamentally proper to attempt as a step in the solution of this problem to force a one-man car into a situation that economically requires a larger car. It is forcing an economy at the expense of the public, because the whole situation is set up on an erroneous foundation.

Commissioner MEEKER. I think that is all, Mr. Chairman.

Commissioner BEALL. When you were talking of investment did you bring out the point that the street-railway company sells say a million dollars of bonds for \$900,000 and it has really made, nevertheless a million-dollar investment, because that is what it has eventually to pay.

Gen. TRIPP. I agree to that entirely.

Commissioner BEALL. Did you bring that out?

Gen. TRIPP. I did not.

Commissioner BEALL. I wanted the commission to understand that there are a good many things that go to make up the cost of this street-railway property that we are apt to lose sight of.

Gen. TRIPP. Yes.

Commissioner MEEKER. Will you make that statement so it will appear in the record as your statement?

Gen. TRIPP. In arriving at the investment in a property there should be included as a part of the legitimate investment the discount on securities; that is to say, securities are not always salable at par, and they are sold at the best price obtainable, and the difference between the price so obtained and par represents a discount which is a proper investment in these properties upon which a return should be allowed.

Commissioner MEEKER. Would that apply to stocks as well as bonds?

Gen. TRIPP. Stocks are usually issued at par. I think in most cases, and perhaps all, stock when it is issued is fully paid at 100 cents on the dollar. Now it may be paid either in cash, 100 cents on the dollar, or it may be paid in promotion service at 100 cents on the dollar, and between those two classes I would distinguish. Where the stock is sold for cash, even if it was not sold at 100 cents on the dollar, if some law permits it, but if it was the best price that could be received for that stock, the discount there should go into the cost of the property.

Commissioner MEEKER. Then what would be the difference between taking the total bonded debt and all the stock outstanding, except such as was issued for promotion services, sum them, and take that sum as the investment upon which returns must be paid to bondholders and stockholders?

Gen. TRIPP. That is precisely what happens. Segregate the securities that are watered securities, so called, prove that the rest of the securities were not watered, and if the rest of the securities were not, they were honestly issued for value. That is the investment in the property.

Commissioner MEEKER. If that were done—turning to the question Mr. Sweet asked—would that in general give the total capitalization above or below a reasonable physical valuation? I use reasonable physical valuation because physical valuations are made and they are alleged to be reasonable.

Gen. TRIPP. I do not think that question can be answered by saying yes or no. About 10 years ago, or perhaps a little earlier, there came a period of readjustment of some of the principal railroad properties in the United States—reorganizations. At that time I was familiar with what was going on generally over the United States, and as to those properties with which I was familiar the securities were so reduced that the physical valuation of the property in almost all cases exceeded, and in all cases equaled and more than equaled, the new securities that were issued—stocks, bonds, and securities of every character. Now, then, the statement regarding those properties would be that the investment in the property—determined by the methods which I have indicated, perhaps, are the more feasible methods—would be less than the physical valuation of the property. There are undoubtedly some properties where this operation has not gone through yet that such a method would determine the amount in excess of the physical valuation.

Commissioner MEEKER. That is by the method that you have suggested?

Gen. TRIPP. Yes, that is to say this: The physical valuation of the property taken at prewar prices might not in all cases equal the

investment in the property as determined by the method I have suggested. But even if it did not, the money actually went into the properties for the service of the people—that is the test. If, in order to produce that service, there has been scrapped an overhead trolley system, and an underground system substituted for the beautification of the city, if expensive tunnels have been built and the company participated in them—if many of those things which you might imagine had occurred, that would form a part of the legitimate investment in the property for the service of the public, but might not be reflected in the physical value of the property as it exists to-day. I say there might be cases of that kind. I doubt if there would be many, and perhaps none; and I would say further that I do not know of any case where I think that would happen.

Commissioner MEEKER. Do you think that it would be easier to arrive at an approximation of a proper valuation through the method you have suggested of getting at investment rather than by the method of physical valuation?

Gen. TRIPP. Yes; I think so. I think that is the most feasible method, as I have suggested.

Commissioner MEEKER. It would be easier and less costly to arrive at?

Gen. TRIPP. Yes.

Commissioner MEEKER. And you think that the public would be satisfied by your method quite as much as by any method of arriving at physical valuation?

Gen. TRIPP. Yes, sir. I think it would depend upon the confidence that the public placed in the commission or individual that made the inquiry along the lines I have suggested.

Commissioner MEEKER. That is all, Mr. Chairman.

Commissioner GADSDEN. General, in this method of arriving at values you have been talking about, is it not true, referring to the depreciation in the purchasing price of money that you have referred to, that under that system all the loss would fall on the investor? In other words, suppose that a property worth a million dollars, costing a million dollars under your system 20 years ago, is covered by bonds at 5 per cent; under your plan that property to-day would be, we will say, valued at a million dollars and the return is still 5 per cent. Now, admitting that the value of money has depreciated 50 per cent, the investor is getting one-half return on his property, is he not?

Gen. TRIPP. Yes.

Commissioner GADSDEN. Therefore is it not necessary, in view of this extraordinary depreciation in the purchasing price of money, in order to equalize that situation either to increase the rate of return or to give the current value of the property in the value of money to-day?

Gen. TRIPP. I do not believe so, Mr. Commissioner. It would be lifting yourself by your boot straps. Currency has depreciated. It was the operation in my opinion of a natural law brought about by the tremendous war debts all over the world. Those war debts have got to be paid. Now, in order to do that, the natural law depreciated currency by about 50 per cent and paid off half this debt. The people who had to have immediate assistance because they had no margin of safety to go on were labor. Next we find the landlord

who had less margin of safety to go on, and he searched for greater income, and he got part of it, but he had trouble in doing it. Labor particularly, then, is not in a position to pay any portion of this war debt. It had no margin to pay it with. It has got to be paid. The people who have got to pay it are the fund owners, the owners of fixed-income securities. And if you adjust their incomes by the method you have suggested so they are relieved, you have not done anything—you have just lifted yourself up by your boot straps and you are right where you were when you started.

Commissioner GADSDEN. Is it not true that the people by your plan would be confined solely to public utilities—

Gen. TRIPP. No.

Commissioner GADSDEN. Would it not be true with investors in every line of business, that their property would be appreciated?

Gen. TRIPP. No; I think you are mistaken, Mr. Commissioner. There are billions of fixed income bonds held by investors throughout the United States on which they can not get relief—railroad bonds. Now, your theory is that the street railway company could get relief if it had a 5 per cent bond; it ought to have an increase in return because of the decreased purchasing power of the dollar. Under my theory, they are exactly in the same position: the owner of a railroad bond is just in the same position—

Commissioner GADSDEN. Unquestionably, but getting outside of regulated properties, getting to textile properties and the value of steel properties—is not the value of a steel mill to-day based upon current prices and not what it cost?

Gen. TRIPP. Yes; but when you get into the question of return on stock in industrials, the industrials are reaping a harvest in this case.

Commissioner GADSDEN. But if you were asked a similar question—What is the value of a shoe factory in Massachusetts or Connecticut to-day?—you would give its current value, would you not? You would not say its value was what the investors put into it in the history of the plant?

Gen. TRIPP. Well, I would not buy a shoe factory on the basis of present earnings, on the same theory that I would have purchased it before the war. I would have to have a wider margin. There is a distinction between regulated and unregulated industries. My theory asks the public to guarantee a return upon our investment in electric railways. The industrials ask no one to guarantee their return. When hard times come they must take their medicine. Now, you can not regard the investment in a public utility which is practically guaranteed by the public on the same basis—

Commissioner GADSDEN. Do you think the history of the industry as you have shown it to-day has shown a guaranty of return?

Gen. TRIPP. No; but I am directing all my testimony here toward the theory which I have promulgated—

Commissioner GADSDEN. Toward the future?

Gen. TRIPP. That there should be a different relation in the future.

Commissioner GADSDEN. Exactly. Therefore is it not necessary to bring the situation up to date to rectify the values of these properties from now on up to date and then keep the account?

Gen. TRIPP. No; I do not think so.

Commissioner SWEET. Gen. Tripp, to put your idea into language, which the average man would clearly understand, let me ask you this question: Take for illustration the country merchant who erects a small frame building in which to conduct his business; he prospers and later on finds that building insufficient for his needs and tears it down and puts up a fine brick structure in its place. The original cost to the frame building would be a part of the legitimate investment, according to your theory?

Gen. TRIPP. Yes.

Commissioner SWEET. And should be added to the subsequent cost of the brick structure and together with other moneys actually invested should constitute the capital upon which he ought to make a legitimate profit. Is that correct?

Gen. TRIPP. Yes; I think he——

Commissioner SWEET. Let me ask one thing further. I am presenting this now in order to bring down your theory to the individual—not saying or asking you to express an opinion as to whether individuals would or ought to figure their profits on that basis, but whether that would be an illustration which you think would be proper for regulated public utilities.

Gen. TRIPP. If I understood your question correctly, I should not think it was quite that way. I understood you to say that the cost of the wooden building would be added in its entirety to the cost of the brick building and that the sum of those two constituted an investment on which he is entitled to a return. Was that your question?

Commissioner SWEET. Yes; the entire investment.

Gen. TRIPP. Now, however, in the street-railway field, the cost of the old wooden building would be charged off against the properties and the cost of the new building would be the amount that it would be entitled to a return on under the system of bookkeeping which has been adopted by the Interstate Commerce Commission, if I am correct.

Commissioner SWEET. Then if money had been expended by a street-railroad company for the purchase of a horse-car system or for changing over from the horse-car system to the cable system or the cable to electricity—do you mean to say all that money should be crossed off entirely and only the value of the electric system taken as representing the capital upon which dividends are to be paid?

Gen. TRIPP. Yes, speaking generally; because a depreciation item has or ought to have been set up to care for depreciation and obsolescence. Now I would not say that that rule ought to be applied arbitrarily and unjustly. But apparatus that has disappeared will generally be found to have been taken care of out of the earnings of the company and it is an item called depreciation or obsolescence.

Commissioner SWEET. In answer to a question by Dr. Meeker, did you not say that earnings legitimately made that might be distributed as dividends, if not so distributed, but put into the property itself, constituted a legitimate basis for future dividends?

Gen. TRIPP. Yes; but earnings legitimately made, as I meant it in that sense, was after providing a reasonable amount for depreciation which covers the item which I have been talking about.

Commissioner SWEET. In other words, if my merchant in our country village had a delivery wagon and a horse, and the horse died and

he replaced that with another horse, that would not be treated as a part of the investment but merely as a replacement of something that is liable to happen in the regular course of business.

Gen. TRIPP. Yes.

Commissioner SWEET. I get your idea now a little better. One thing further: In answer to a question by Dr. Meeker, you said there were differences in the problem involving street railways in different cities.

Gen. TRIPP. Yes.

Commissioner SWEET. Of course there are. Every one differs from every other one—there are no two exactly alike any more than there are two people exactly alike; is not that true?

Gen. TRIPP. That is true.

Commissioner SWEET. But is there not running through all of them a series of questions or propositions, so to speak, that are almost exactly similar?

Gen. TRIPP. If I understand your question, I think I would answer it yes. Now, would you illustrate for example what you have in mind?

Commissioner SWEET. I mean to say, in taking the situation throughout the country at large we find practically all of the street railways in a distressed condition, do we not?

Gen. TRIPP. We do; yes.

Commissioner SWEET. If there are any that are not, they are exceptions.

Gen. TRIPP. Yes.

Commissioner SWEET. And only very few of them.

Gen. TRIPP. Only very few.

Commissioner SWEET. Now then it would naturally seem as if there are certain general causes that were bringing about this general result. One of those that you have mentioned, and a very important one undoubtedly, is the lessened purchasing power of money?

Gen. TRIPP. Yes.

Commissioner SWEET. That goes through all of them. Do you not consider, then, that it is one of the proper functions of this commission to endeavor to find what is the trouble that applies to all of them and devote its efforts to recommending remedies for those general evils rather than to pry into separate city difficulties with a view of directly applying its efforts to each separate case?

Gen. TRIPP. Oh, by all means, I think that is your function absolutely.

Commissioner SWEET. Of course our work would be interminable if we took up the cases of Buffalo, Detroit, Cleveland, and different cities.

Gen. TRIPP. Yes. Those are only valuable as they illustrate the general condition.

Commissioner SWEET. That is exactly it. Now then, our knowledge of the general condition must be based upon as much and as accurate information as possible from the various localities.

Gen. TRIPP. Precisely.

Commissioner SWEET. Then is it not our function, in your judgment, to sift and analyze and finally determine what are the general factors that are practically applicable to all or nearly all of the communities and make our recommendations in accordance with what our

conclusions may be as to those common, general, all-pervading factors?

Gen. TRIPP. Yes, sir.

Commissioner SWEET. Right on that point, General, considering your familiarity with the whole subject and the general situation, will you tell us what in your judgment is the best line of inquiry and work for this commission, and whether you think we can do any good or not?

Gen. TRIPP. I think you can do——

Commissioner SWEET. I do not mean now good for the companies or good for the employees or good for the communities alone, but good for all, upon the theory that you expressed here a little while ago, that their interests were in common and not in conflict.

Gen. TRIPP. I could not express so well as you have, Mr. Commissioner, the course which your inquiry ought to take. It exactly coincides with my view. The fundamental difficulty should be inquired into by your commission. And I hope that you will find a fundamental basis upon which should rest all local arrangements between municipality and company. And if you should do that, I think, speaking from the standpoint of the electric railways, that you are the only hope that the industry has to save it from complete bankruptcy. I think the general bankruptcy of the electric railways would have an effect upon the public, their service rendered would be reduced, the cost of service would bound to be increased, there would be tremendous losses to small individual investors, fiduciary institutions would find the assets which they have protecting their life insurance policies, and their savings bank deposits seriously encroached on; and all this is unnecessary.

Commissioner SWEET. Would it have any tendency to disturb labor conditions?

Gen. TRIPP. Yes; I think the proper solution of this problem makes for industrial peace.

Commissioner SWEET. And stability?

Gen. TRIPP. And stability. It makes for more satisfied employees.

Commissioner SWEET. And regular employment, I suppose?

Gen. TRIPP. Yes, and more regular employment, because reduction of service means unemployment to somebody.

Now there is no other hope, there is no other avenue that this matter can be put before the public as a national problem except your commission. And I have great hopes that when you have made your recommendation, the press in the interval will have treated this case liberally and fairly and that the public will be ready to receive your recommendation and will be interested in what it is, and when that is done you will have paved the way for us to approach the parties to the other side of the contract for a new deal which will be beneficial to everybody concerned.

Commissioner MEEKER. May I ask a question? It seemed to me there was a little bit of confusion involved in your answer to my question as to what was the proper method of arriving at the capital investment upon which the companies were entitled to receive earnings and the answer you made to Mr. Sweet's question. As I recall, you said in reply to my question that all outstanding bonds and all stocks not issued in payment of promotion services would constitute the sum

total of capital fund upon which income should be paid to the company.

Gen. TRIPP. Yes, sir.

Commissioner MEEKER. Now if a company purchases an old horse-car line or any superannuated line—and it purchases it usually through the issuance of bonds or may do so through the issuance of stock—now, how can you write off the cost or investment in the old horse-car line or the other superannuated line in such a case as that? How can you write it off in any case if you are going to take into account the bonds and stocks that represent the original investment?

Gen. TRIPP. Well, as I stated, you would not write it off under my method except that it would be found—I understood Commissioner Sweet's question to be based on this: Would the physical valuation of the property be found to equal or exceed the securities outside of promotion securities which you have just mentioned; and my answer was that in most cases they would and I knew of no case where they would not. Then the question came as to what had been done with the old properties in its bearing upon the physical valuation, and I think there I stated that there had been or ought to have been set up for depreciation an amount to amortize this old horse railroad that you speak of.

Commissioner MEEKER. But it is not clear in my mind yet. Say \$100,000 worth of bonds have been issued to purchase an old horse-car line. The \$100,000 bonds, let us say, are not amortized. They do make up a part of the outstanding securities.

Gen. TRIPP. Well, of course in the great aggregate of capital on an electric railway you have sinking funds operating all the time to reduce your funded indebtedness. During the last 30 years issues of bonds have fallen due, generally speaking, and have been paid or refunded. I suppose there are very few bonds outstanding which were dated as long ago as the eighties. Now when you come to the refunding operation of those bonds, the matter of taking care of the depreciation and the obsolescence of those old horse-railroad properties all adjusts itself because the question that presents itself then to the company is how much money do we need: and they get what they need.

Commissioner MEEKER. So that the process is not a cumulative process of adding the brick building to the old wooden building—

Gen. TRIPP. No.

Commissioner MEEKER. An a granite building to the brick building and a marble building to the granite building?

Gen. TRIPP. Not at all.

Commissioner MEEKER. It is merely the marble building that is getting the return?

Gen. TRIPP. Yes. In other words, a properly managed company when it comes to renew its bonded obligations which are falling due only issues sufficient new bonds to take of its then requirements. Its then requirements reflect, if its books have been kept properly, the effect of depreciation charges and charging off this obsolescent property.

Commissioner GADSDEN. Can I ask a question right there?—because I think there is probably a little misapprehension about it. You are discussing this on the basis of a company whose income has been sufficient to set up these reserves.

Gen. TRIPP. Yes.

Commissioner GADSDEN. That is true, is it not?

Gen. TRIPP. Yes.

Commissioner Gadsden. As a matter of fact in the history of the industry have these companies set up these reserves to do that?

Gen. TRIPP. Some have and some have not and those that have not are to-day on the verge of bankruptcy, and you will have no difficulty in dealing with those.

Commissioner BEALL. Let me ask a question which I think will clarify it. Is not the general fact this? Take in New York for instance, where the roads have changed from cable to electricity. They did not do it because the cable was no longer able to take care of the traffic or because it was absolutely obsolescent because it was so old it was worn out. They thought they had a better method, a more economical method to the public—cheaper service and better service and more carrying capacity.

Gen. TRIPP. Yes.

Commissioner BEALL. They made those changes from the cable roads and did the same thing in Seattle and numerous other cities, when those cable roads still had a life of a good many years.

Gen. TRIPP. Yes.

Commissioner BEALL. Some of them had only run for a few years. If they had run for 20 years, they could not have built up enough reserve to charge it off at once. The method generally pursued, I understand, was this: They did not charge them off in one fell swoop, but amortized it over a number of years. For instance, if the change cost \$3,000,000 and they lost \$3,000,000 for the junk in the old cable, they amortized that over 20 or 30 years, so much a year. Now the fares proved insufficient from year to year on account of the depreciated purchasing power of the nickel, and they were not able to carry it through that amortization; and the result to-day is that the companies in the great cities are carrying a big investment which they have not been able to amortize and wipe out and that came about through their desire to give better service to the public, and they junked some things that were only 5 years old. Is not that true in a great many cases?

Gen. TRIPP. Well—

Commissioner BEALL. Let me follow that up. I do not understand you to say, do I, that until they have had an opportunity to properly take care of that amortization of past investment that they junked in order to give better service—until they are able to get that out of the way ought not they be allowed to earn on it?

Gen. TRIPP. Certainly.

Commissioner BEALL. I do not think that was clear from your statement.

Gen. TRIPP. But, generally speaking, my method of valuing securities would result in that very thing.

Commissioner BEALL. I think it would, but I do not think the commission quite got that point—that nearly all these companies in the big cities are still carrying a great big investment which represents things which they junked, which still had a long, useful life before them, in order to give better service to the public.

Commissioner SWEET. There is just one question. You do not mean to say, General, that the change from the cable to electricity was done solely to render better service to the public, do you?

Gen. TRIPP. Not at all.

Commissioner SWEET. Was not the element of greater economy and greater profit to the companies a large element?

Gen. TRIPP. Oh, yes; the larger element, of course.

Commissioner BEALL. It was a combination of both. They were able to give better and faster service and carry more people.

Commissioner SWEET. Yes.

Commissioner MEEKER. Then, in answer to my question, the companies are, in some instances, carrying stock issues or bond issues that represent the obsolete brick building. They have not yet had time to amortize them?

Gen. TRIPP. I am glad you asked that question, because I had almost forgotten to add to my reply to Commissioner Beall. All those companies that have come under my observation that have changed from cable to electricity have been through the hands of a receiver and the whole thing has been wiped out.

The CHAIRMAN. We will resume at 2 o'clock, gentlemen.

Mr. WARREN. May I excuse Gen. Tripp?

The CHAIRMAN. I understand Commissioner Wehle desires to resume the cross-examination. Is it convenient for you to be here this afternoon?

Gen. TRIPP. If I could be permitted to leave as early as a quarter of 3 it will suit my purposes.

The CHAIRMAN. That will be all right.

(At 12.30 o'clock p. m. a recess was taken to 2 o'clock p. m.)

AFTER RECESS.

The hearing was resumed at 2 o'clock p. m.

STATEMENT OF GEN. G. E. TRIPP—Continued.

The CHAIRMAN. Have you any further statement to make, Mr. Tripp?

Gen. TRIPP. No, Mr. Commissioner; I have nothing more.

The CHAIRMAN. You had been discussing the question of capitalization and value this morning. Do you believe it to be the function of this committee to make a finding as to the existing capitalization of railroad companies?

Gen. TRIPP. No, sir.

The CHAIRMAN. Do you think that the commission should investigate the capitalization of independent or individual companies, so that it could reach some determination upon the question as to whether there is or is not watered stock in the securities of these companies?

Gen. TRIPP. No, sir; I have not thought that that would be a function of this commission.

The CHAIRMAN. How should the commission proceed to make such an investigation, if it thought advisable to do so?

Gen. TRIPP. It would be a very long investigation and require a minute investigation into individual companies.

The CHAIRMAN. Could you outline the procedure? If we tried to find out the amount of money that was taken from the sale of stocks and bonds and invested in the property, and if we undertook

to reach the original cost in that way, how long would it take to complete that investigation for the New York system?

Gen. TRIPP. You cited the most difficult one, I think. It would take some months.

The CHAIRMAN. How long would it take to clean up the Chicago situation?

Gen. TRIPP. It would take some months.

The CHAIRMAN. Would such an investigation be of any value, unless a sufficient number of companies were looked into, so that the findings would be regarded as reliable?

Gen. TRIPP. Will you please ask the question again?

The CHAIRMAN. Will the reporter please read the question?

(The reporter read the question as above recorded.)

Gen. TRIPP. No.

The CHAIRMAN. Is it your opinion that a value based upon cash securities and stocks and bonds put into the property would be regarded as a safe value for purchase?

Gen. TRIPP. For purchase?

The CHAIRMAN. Yes.

Gen. TRIPP. By the municipality?

The CHAIRMAN. Yes, sir.

Gen. TRIPP. I should have to give considerable thought to that question, Mr. Commissioner, before I answered it. I would say that there should be added to the items you have mentioned the investment in property out of the net earnings, which net earnings belonged theoretically to the stockholders.

The CHAIRMAN. Would the companies be willing to sell upon that basis?

Gen. TRIPP. Sir?

The CHAIRMAN. I say, would the companies be willing to sell upon that basis?

Gen. TRIPP. I don't know.

The CHAIRMAN. What is that?

Gen. TRIPP. I don't know whether they would or not.

The CHAIRMAN. You spoke this morning about establishing a new relationship between the utilities and the public and investors. Of course, that presumes a proper form of regulation?

Gen. TRIPP. Yes, sir.

The CHAIRMAN. What should that be?

Gen. TRIPP. Do you ask whether it should be State regulation or local regulation?

The CHAIRMAN. I am asking you what should be the proper form of regulation.

Gen. TRIPP. If the new contract between the municipality and the company were of such a nature—and I think it should be—that it amounted to a practical guaranty of a fair return upon a fair investment in the property, then it would seem safe to leave the regulation of the local utility to the local authorities who have made the guaranty.

The CHAIRMAN. In your judgment, will the service-at-cost plan result in excluding the States from the regulation of these utilities?

Gen. TRIPP. It is difficult for me to say, without giving the matter much consideration, what place the State commissions would have in such a relationship.

The CHAIRMAN. Under a proper service-at-cost plan the rates rise or fall automatically, according to the earnings, do they not?

Gen. TRIPP. Yes, sir.

The CHAIRMAN. Is there any rule for a regulating commission to exercise judgment in determining the reasonableness of the rate under such plan?

Gen. TRIPP. No; I should think not.

The CHAIRMAN. That being so, can you see a good reason for having the State commissions given any control over the service of these utilities where the cost-of-service plan has been adopted?

Gen. TRIPP. I can not see any reason now.

The CHAIRMAN. Do you see that they should exercise any control over extensions of the properties?

Gen. TRIPP. I do not see any reason why they should.

The CHAIRMAN. Or the capitalization?

Gen. TRIPP. No; the capitalization in that case would be a matter of no moment to anyone except the company.

The CHAIRMAN. Do you believe that the highest quality of service and best form of protection to the public, as well as to the utilities, would be secured through local regulation rather than State regulation?

Gen. TRIPP. Provided always that there is a relationship which imposes an obligation upon the municipality, which amounts to a guaranty of a fair return on the fair investment, I think a better administration of that relationship would probably lie in the hands of the municipality.

The CHAIRMAN. But it presupposes, does it not, the fact that the municipality has the intelligence to properly examine the operating sheet of a railroad to see that the accounts are properly kept and to clearly understand how to regulate such a utility?

Gen. TRIPP. It presupposes that, but the test comes in the cash in the cash drawer to pay this fair return.

The CHAIRMAN. Well, from the experience you have had in this work, is it your opinion that municipalities, generally speaking, give close attention to the operation of these utilities and the control of their securities and expenses in such a way that the public can safely trust them with that responsibility?

Gen. TRIPP. I should answer that by saying that my observation is that probably not, under the form of contract, at least, which has been in common use.

The CHAIRMAN. If the service-at-cost plan is adopted, is it not possible that there will be a good deal of irritation between the utilities and the public growing out of a shifting charge for the service?

Gen. TRIPP. Yes, that might be possible.

The CHAIRMAN. What will that lead to?

Gen. TRIPP. It will probably lead to municipal ownership, if such an irritation did arise that was severe enough.

The CHAIRMAN. You have recently gone through an experience down in Cleveland. Was the recent settlement there satisfactory to the public as well as to the utility?

Gen. TRIPP. I am not familiar enough with that settlement to state, Mr. Commissioner.

Mr. WARREN. Where was that, Mr. Chairman?

The CHAIRMAN. In Cleveland.

Gen. TRIPP. I heard it stated by my Cleveland friends that it is satisfactory neither to the company nor to the public.

The CHAIRMAN. Should this commission undertake to outline a proper form of franchise to be used by utilities?

Gen. TRIPP. I do not think your commission should, sir.

The CHAIRMAN. Should it outline or indicate the general principles which should be incorporated in such a franchise?

Gen. TRIPP. Only the most basic principles.

The CHAIRMAN. At the present time, there is no common basis upon which franchises are made, is there?

Gen. TRIPP. No.

The CHAIRMAN. They usually depend upon bargain and trade?

Gen. TRIPP. Yes.

The CHAIRMAN. Therefore there is no relationship between them. Would not the utilities, as well as the public, be better off if there was some standard form of a franchise used?

Gen. TRIPP. There might be a few standard fundamentals, as, for example, that the franchise should be without date of expiration, or some general principle of that kind.

The CHAIRMAN. But you do not think the commission should attempt to prepare a form of franchise and submit it to the public?

Gen. TRIPP. I think the conditions are too varied, probably, to permit such a standard form being of great value.

The CHAIRMAN. Would it not be helpful as a guide?

Gen. TRIPP. I should rather see more danger in it than possible help.

The CHAIRMAN. What would be the element of danger to be found in such a standard form?

Gen. TRIPP. That any standard form of franchise must go into considerable detail, and those details would be rarely found to fit in with completeness the local situation.

The CHAIRMAN. But you would feel satisfied if all of the municipalities in the country would adopt the service-at-cost plan?

Gen. TRIPP. I feel that is about the only hope to work out the situation.

The CHAIRMAN. Well, if that is the aim which you have in mind, would it not be well to outline the kind of a franchise which should be entered into when such a plan is adopted?

Gen. TRIPP. I do not think so, Mr. Commissioner, because the service-at-cost plan does not necessarily mean an increase of fare, although probably it would. It might mean a zone system in some particular places. It does not always mean relief from paving taxes, although it might be desirable in some places. For example, a community which require street-railway service and could not afford to pay, say, a 6 or 7-cent fare, might relieve the company in that community from taxes in the whole, including their real-estate and real-property taxes, and I could imagine a community going so far as to subsidize a street railway in order to retain the service at a price which would make it useful to the public. Therefore, I think it would be dangerous to outline in detail the kind of cost-of-service plan—that is, any universal cost-of-service plan. I think the commission should and ought to lay down the basic principles upon which any cost-of-service plan should rest, and that should be broad enough to permit of various plans.

The CHAIRMAN. Should such a recommendation suggest the wisdom of indeterminate permit franchises?

Gen. TRIPP. Yes.

The CHAIRMAN. That is one of the principles that you would approve?

Gen. TRIPP. That is one of the principles which should be decided upon.

The CHAIRMAN. Now, assume that the commission should not be willing to reach the conclusion that the service-at-cost plan was the proper thing, then what alternative have you to suggest?

Gen. TRIPP. I have no alternative, Mr. Commissioner, except to recommend that fares be increased to remedy the existing situation, and let the future take care of itself.

The CHAIRMAN. Has your association, or will your association, present a witness who will outline just what the result of increased fares has been in the different communities?

Gen. TRIPP. Yes, sir.

The CHAIRMAN. That will be gone into quite completely?

Gen. TRIPP. That will be gone into quite completely. And I would also say it is intended to present a witness who is thoroughly familiar with all the different cost-of-service plans which have been put into use, or even contemplated.

The CHAIRMAN. Will there be a witness who will state where the money comes from and where it is held and the extent of it?

Gen. TRIPP. Yes, sir; there will be a witness to cover that point.

The CHAIRMAN. I have no other questions.

Mr. WARREN. Gen. Tripp, just one question: In reply to Mr. Gadsden's question this morning, you said you saw no reason to change the rate on the existing securities because of the depreciated purchasing value of the nickel. That, of course, I assume, applied only to the existing securities.

Gen. TRIPP. Yes.

Mr. WARREN. As regards securities issued in the future, to meet future requirements, capital requirements, the money would have to be obtained at the market rates, I presume?

Gen. TRIPP. Yes, sir.

Mr. WARREN. That is all. Thank you very much, General.

Mr. WARREN. Mr. Chairman, I am going to call next Mr. H. A. Stuart, of the firm of Halsey, Stuart & Co., of Chicago, bankers. Mr. Stuart has an engagement which makes it necessary for him to take the Congressional Limited, leaving in an hour. I hope I can finish with him in that time, but if not, I shall have to ask the indulgence of the commission, in case it is necessary for him to come back and finish his examination.

The CHAIRMAN. You may proceed without interruption.

Mr. WARREN. Yes.

STATEMENT OF MR. HAROLD L. STUART.

Mr. WARREN. Your full name, Mr. Stuart?

Mr. STUART. Harold L. Stuart.

Mr. WARREN. And your business?

Mr. STUART. I am president of Halsey, Stuart & Co., investment bankers, whose principal office is in Chicago.

MR. WARREN. And in your banking business, Mr. Stuart, have you had occasion to distribute street-railway securities to a considerable extent?

MR. STUART. We have distributed many millions of street-railway securities. In one case alone, in Kansas City, I think, the amount is about \$15,000,000.

MR. WARREN. On that one?

MR. STUART. On the one system.

MR. WARREN. On the one system?

MR. STUART. Yes.

MR. WARREN. And you have distributed such securities very generally, have you?

MR. STUART. Very generally, from Maine to California.

MR. WARREN. And on corporations operating from Maine to California also?

MR. STUART. Well, a great many different corporations, but to investors of all kinds residing in territory from Maine to California.

MR. WARREN. But you have also handled securities of companies all over the country?

MR. STUART. Pretty generally, yes; throughout the country.

MR. WARREN. You have handled some, I think, in Massachusetts?

MR. STUART. Yes.

MR. WARREN. Will you tell the commission how, in your judgment, those securities are purchased and held—by what people, by what classes of investors, and in what amounts?

MR. STUART. They are held by all classes of investors—insurance companies, savings banks, trustees, individual investors, insurance funds of all kinds. The largest holders in the aggregate, I think, of street-railway securities are the individual investors that buy not over \$5,000 at a time.

MR. WARREN. That is what might be called the ultimate investor?

MR. STUART. I think I would call that the ultimate investor of street-railway securities, or he was the ultimate investor up to a couple of years ago.

MR. WARREN. And that applied generally, you say, all over the country two years ago, that investors of that kind were the purchasers and holders of these securities?

MR. STUART. Up to that time street-railway bonds were generally considered to be safe investments.

MR. WARREN. How are street-railway securities regarded now in investment circles?

MR. STUART. They are regarded with great distrust and disfavor, to such an extent that it is almost impossible to distribute street-railway securities, I don't care how good they are. I am speaking now about bonds, not stocks.

MR. WARREN. Yes; bonds.

MR. STUART. It would be absolutely impossible to distribute street-railway stocks.

MR. WARREN. And how long has that been true?

MR. STUART. So far as bonds are concerned, as I say, about two years ago. For some time back of that street-railway stocks had not been sought for, I believe.

MR. WARREN. But the market for bonds disappeared about two years ago?

Mr. STUART. Yes; just about.

Mr. WARREN. The distributing banking house, I suppose, has little or no control over the earnings of the companies?

Mr. STUART. No; the distributing banking house has no control over the earnings of the company. There is no control over the management of the company. The distributing banking house makes a very careful investigation of the value of the property, the community, the franchise situation, and the management, and then buys outright bonds, and sells them through its selling organization to the class of people that I have stated.

Mr. WARREN. And to what extent have the laws of any particular jurisdiction had an effect upon the selling quality of the bonds issued by utilities in that jurisdiction?

Mr. STUART. They have quite a considerable influence. For example, when the public-service commissions throughout the country began to be formed a great interest was aroused on the part of investors, and I think that the very fact of those public-utility commissions being formed influenced a great many people to buy street railway and other public-utilities securities that theretofore were not interested. They believed that the public-service commission would be a disinterested party, in so far as any local situation was concerned, whereas the local authorities would be very much interested, and the investor felt that he would receive better and fairer treatment from the disinterested party than he would from the interested party.

Mr. WARREN. If, for any reason, in any particular State or other jurisdiction, a system exists, whether of law or franchise, which is antagonistic, or is not calculated to promote the development and security of a public utility, what effect has that on the bonds?

Mr. STUART. It has the effect of keeping people out of the State entirely. There have been such situations. For example, I recall a few years ago, in both Georgia and Texas, the sentiment in those States was such that it was very difficult, or impossible, to sell public-utility securities that came from those States. The investment bankers have no control over what their client does with the money; and the great majority of clients are seekers after information, and if they find that in any given community or State, or in any given industry, conditions are not very favorable, their money will go elsewhere.

Mr. WARREN. That may apply to all kinds of securities in the State and the securities of a particular industry, if for any reason a particular industry is under this disadvantage?

Mr. STUART. Yes, sir.

Mr. WARREN. As the result of your having placed so many of these street-railway securities, I presume you have followed the street-railway situation more or less closely in the last few years?

Mr. STUART. Yes, sir.

Mr. WARREN. And you have heard Gen. Tripp's testimony this morning?

Mr. STUART. I have.

Mr. WARREN. Were you here all during his testimony?

Mr. STUART. I heard it all.

Mr. WARREN. Do you agree in general with what he said about the street-railway situation to-day in this country?

Mr. STUART. I do.

Mr. WARREN. About its extreme seriousness?

Mr. STUART. Exactly.

Mr. WARREN. Have you had occasion in connection with any particular company to be acquainted with such a situation in the case of that company as would illustrate the tendency which Gen. Tripp referred to? You mentioned the Kansas City company, where you had distributed some \$15,000,000 of bonds. Have you followed that company?

Mr. STUART. I have and I should like to say something about that.

The Kansas City Railway & Light Co. was put in the hands of a receiver in 1910. Up to that time I knew nothing about the company. The reason for its being put in the hands of a receiver was not due to lack of earning capacity, but the company had an expiring franchise and expiring bonds, and it was impossible to refund those maturing obligations without either an extension of the franchise or a new franchise.

After three or four years in the hands of a receiver, Kansas City, Mo., in consideration of divorcing the properties—I mean by that separating the electric light from the street railway property—gave to the street-railway company a 30-year franchise, and at the time it was granted it was considered by both street railway experts and investors to be a model basis for investment. The property was reorganized, and the bondholders received new securities of a market value of substantially equal to the full principal of their securities.

In the meanwhile interest had been paid right along through receivership.

This reorganization plan was made by Judge William C. Hook, who was the United States circuit judge, and he appointed me his representative to carry out his financial plan of reorganization.

After the reorganization was completed, then my firm came into the situation as banker for the railway company, and it is since that time that we have placed and sold this substantial amount of securities. The people who took those securities were the most careful investors in the country—savings banks, insurance companies, and other investors. There were thousands of individual investors. The securities were considered to be so good that one of the largest insurance companies, which took \$500,000, had a special meeting of their finance committee to decide whether or not they should take \$1,000,000 instead of \$500,000, although \$500,000 was their full quota of anything.

The basis of the Kansas City franchise was a division of the profits with the city. There was a valuation there in the franchise, agreed to by the city through their own experts, and afterwards approved by the Public Service Commission of Missouri, and all the securities that were issued were approved both by the city and the Public Service Commission of Missouri. The valuation was largely in excess of the bonded indebtedness, and the company was to have a 6 per cent interest return after all depreciation on the capital investment. The fare was fixed at 5 cents.

Time went on, and the first happening was the passing of the 5 per cent dividend on the stock.

Mr. WARREN. About when was that, do you remember?

Mr. STUART. As I recall that, it was about in June or July, 1917.

The costs began to mount until what we considered—and we had our judgment backed up by many, many people who know—on July 1 of this year, the railway company was compelled to pass its interest. It had not earned operating expenses for the past six months.

Mr. WARREN. Its interest on these bonds?

Mr. STUART. The interest on all bonds, the interest on the first-mortgage and the second-mortgage bonds.

Mr. WARREN. Yes.

Mr. STUART. I stated that the franchise provided for a 5-cent fare. The situation got so bad that there was a great deal of sentiment aroused in Kansas City by the public themselves, and when the company made an application to the Public Service Commission of Missouri for an increase in fare to 6 cents, there was a great deal of support for it on the part of the people in Kansas City. There was some newspaper—I should say there was considerable newspaper opposition. The public-service commission, however, granted the increase in fare to 6 cents, and some citizens of Kansas City questioned the right of the commission to increase this rate in the face of the 5-cent fare in the franchise; and this matter was taken to the supreme court, and last fall the Supreme Court of Missouri decided that the public-service commission did have a right to raise the fare.

In this particular case, the matter is now in the hands of the public-service commission for a further increase in fare, and the company has asked for a 10-cent cash fare, or 2 tickets for 15 cents. That is now pending, and is to be decided, I believe, within 60 days.

But I mention this as showing what was considered to be a magnificent investment, which, through no control of the bankers, no control of the investors, all the time giving first-class service to the community, has fallen into disrepute, with very poor prospects indeed, unless relief is given by the public-service commission.

Mr. WARREN. Could you state when the company started on the new organization?

Mr. STUART. The date was July 1, 1914.

Mr. WARREN. And it was at that time that the prospects looked so good?

Mr. STUART. Well, even later. The prospects up to 1916 were excellent.

Mr. WARREN. Were these bonds distributed after July 1, 1914?

Mr. STUART. Yes; these bonds were distributed after July 1, 1914, or really after July 1, 1915. Some of them before that.

Mr. WARREN. So this complete overturning and change in situation has been within the last five years?

Mr. STUART. Exactly.

Now, our interest in this thing, in common with all other dealers in public-service securities, is that we want to protect our investors. The investors can not be protected unless the future is in some way taken care of, for a public-service corporation in a growing city needs money constantly; and if it does not need money, it is not in a healthy condition.

Mr. WARREN. Do you mean capital money?

Mr. STUART. I mean new capital money—it is not in a healthy condition, and in order to safeguard and protect these tens of thousands of people who hold public-utilities securities, it is necessary to not

only provide for their investment which is already in, but to further protect it by making it safe for the investors of to-morrow who have not spent their money, and over which nobody has any control, to come in.

Mr. WARREN. Now, did I understand you correctly—that before the new securities were issued of which you distributed such a large part, the property was valued by experts on behalf of the city?

Mr. STUART. The property was valued by experts in behalf of the company, by a number of experts in behalf of the city, and, in addition to that, by the experts of the Public Utilities Commission of the State of Missouri.

Mr. WARREN. On behalf of the city, and the commission approved the valuation?

Mr. STUART. The valuation—the securities.

Mr. WARREN. The securities?

Mr. STUART. Yes.

Mr. WARREN. And that applied to all the securities which were issued?

Mr. STUART. That applied to all of the securities which were issued.

Mr. WARREN. And the valuation was equal to all of those securities?

Mr. STUART. The valuation was in excess of all of those securities.

Mr. WARREN. The valuation was in excess of all of those securities?

Mr. STUART. Yes.

Mr. WARREN. So that in that particular case, unless the valuation was faulty, although made by many different interests, there was no question whatever of stock watering as affecting the result which has now overtaken the company?

Mr. STUART. None whatever.

Mr. WARREN. I suppose you have not any data, Mr. Stuart, which will enable you to give even an approximate idea of the number of street-railway security holders, holders of bonds in the country, or any part of it, have you?

Mr. STUART. I think that would be impossible to find out, except that it might be procured from the street railways themselves, all of whom get income-tax certificates on every coupon that is cashed. Collectively, they will have a list of substantially every bondholder in the United States. I believe there are some 1,300 companies, most of whom, I assume, have a bonded indebtedness, and you could therefore get it from them. But the average distribution of street-railway securities is in very small amounts.

Mr. WARREN. That would include, in reaching your average, the exceptionally large holder like the insurance company that you mentioned?

Mr. STUART. If I am not mistaken, the average holding of the Kansas City Railway bonds, including some very large amounts held by insurance companies and banks, is about \$7,000.

Mr. WARREN. I think that is all, Mr. Chairman, I want to ask Mr. Stuart.

Commissioner SWEET. Mr. Stuart, are many of these bonds held by widows and orphans?

Mr. STUART. Yes, sir.

Commissioner SWEET. Or for them by trustees?

Mr. STUART. Yes, sir; both ways.

Commissioner SWEET. What was the smallest bond issued by the Kansas City Co.?

Mr. STUART. A hundred dollars

Commissioner SWEET. A hundred dollars?

Mr. STUART. And there were many, many thousands of those sold to widows, orphans, and wage earners.

Commissioner SWEET. A single bond?

Mr. STUART. Single bonds.

Commissioner SWEET. Of a hundred dollars?

Mr. STUART. Yes, sir. As a matter of fact, we considered them so good that to the people who bought small denomination bonds, we gave a wage earner a chance to buy a hundred dollar bond by paying \$10 down and \$5 a month.

Commissioner SWEET. Did many take advantage of that?

Mr. STUART. Many.

Commissioner SWEET. Would the exact data or information on that subject be available so that we might have it?

Mr. STUART. In that particular case, yes, sir. We can have that analyzed for you in a little time.

Commissioner SWEET. Yes.

Mr. STUART. A complete list of the bondholders, giving you all the different classes and the amounts—a careful analysis—so that you can see at a glance the class of people who hold these securities.

Commissioner SWEET. Will you be so kind as to do that, Mr. Stuart?

Mr. STUART. I should be very glad to, but it will take a little time.

Commissioner SWEET. Yes.

Mr. STUART. It will probably take, I should say, a week or 10 days.

Commissioner SWEET. You can send it to the chairman, Mr. Elmqvist.

Mr. STUART. I should be very glad to do that.

Commissioner SWEET. And that will be available for the commission?

Mr. STUART. Yes, sir.

Commissioner SWEET. Upon what basis did the expert you have mentioned arrive at the valuation of the Kansas City properties?

Mr. STUART. It was the depreciated physical property, plus about 15 per cent of old property that had not been previously amortized. A part of the trade was that the city was going to contribute its share of earnings toward that unamortized part, and, as a matter of fact, under the franchise, the city was going to reinvest its share of the earnings in the property right along until, in some 20 or 30 years, they would have controlled the property. The city would have had more money in it than the individuals or than the company.

Commissioner SWEET. That is, if the business had gone along as was anticipated in 1914 and 1915?

Mr. STUART. Yes, sir; at the time the calculations were made. It was all calculated out on the basis of the earnings as they were at that time.

Commissioner SWEET. Do you know whether municipal ownership and operation were in contemplation?

Mr. STUART. Municipal ownership and operation may have been in contemplation to some extent, but not entirely, because by the time the franchise would have expired the city would have owned substantially half of the property, and I take it that if municipal ownership had been in contemplation it would have been so arranged that they would have controlled the property or owned it all by the expiration of the franchise. But in connection with this arrangement about the city reinvesting in the property, that was another reason why the securities of the company were considered to be so good, because we were permitted to say in our circular by the city counselor of Kansas City at that time—although he would not sign the circular—that this franchise was really a partnership agreement between the city of Kansas City and the railway company.

Commissioner SWEET. In one sense it was; was it not?

Mr. STUART. It was a partnership, but it was a one-sided partnership, I am afraid.

Commissioner SWEET. As it turned out.

Mr. STUART. As it turned out.

Commissioner SWEET. Because the profits were not there?

Mr. STUART. Yes, sir; exactly.

Commissioner SWEET. And the city at the present time, and for the last two or three years, has not been getting any, has it?

Mr. STUART. The city has not gotten anything for over two years.

Commissioner SWEET. No.

Mr. WARREN. The company has not, either, has it, Mr. Stuart?

Mr. STUART. Not for dividends. They have paid interest up until July 1 of this year.

Mr. WARREN. But they defaulted then?

Mr. STUART. Oh, they defaulted on July 1 of this year.

Commissioner SWEET. Do you remember whether any difficulty was experienced in reaching a harmonious decision as to the valuation of the property as between the experts representing the city and those representing the company?

Mr. STUART. My recollection is that there was very little difficulty in reaching an agreement on the valuation. The real difficulty was in trading on the other points of the franchise, the rate of interest that was to be allowed, the division of profits with the city, the amount that was to be charged for depreciation, the fact that the city had 5 directors in the company out of 11, and points of that kind. There was no great trade in the valuation, and a very important thing in connection with the franchise, really, that I have not mentioned, was the fact that it was approved by referendum vote, so that the voters all had a chance at it; but it did take, from the time of negotiations of this franchise began up until the final referendum vote, about three years. In the meanwhile, the earnings of the property were good enough, so that the receiver paid interest on everything right along, and kept the property up in first-class physical condition.

Commissioner SWEET. At the time the referendum vote was taken, was the property in the hands of a receiver?

Mr. STUART. It was; yes, sir.

Commissioner SWEET. And still the people voted in favor of it?

Mr. STUART. And still they voted in favor of the franchise. The property was not taken out of the hands of the receiver until about

a year after this referendum vote, because, after the franchise on which the whole reorganization was based, then, of course, it took a long job to treat with all the different security holders and get out the new securities and draw the mortgages and do all the many other things that had to be done in a situation of that kind.

Commissioner SWEET. That was all done during the receivership?

Mr. STUART. That was all done during the receivership. That was done in the year between the time of the referendum vote and the ending of the receivership.

Commissioner SWEET. The receivership then had no reference to the defaulting or failure of income.

Mr. STUART. Not failure of income; but the receivership was caused by a default, because the company had a lot of securities, several million dollars' worth of securities, due with a franchise which ran only a few years.

Commissioner SWEET. Yes.

Mr. STUART. And with the principal due?

Commissioner SWEET. Yes.

Mr. STUART. Then the bankers of the company felt that they could not undertake a refund with this expiring franchise in sight.

Commissioner SWEET. But all of that related to conditions which had existed prior to the making of this new arrangement that you have been telling us about.

Mr. STUART. Yes, sir.

Commissioner SWEET. Did the experts come to an agreement in regard to the addition of the 15 per cent that you speak of?

Mr. STUART. The experts of the public-service commission came to an agreement in regard to the items that made up that 15 per cent.

Commissioner SWEET. You said that the securities issued were less than the value placed upon the property by the experts.

Mr. STUART. Yes, sir.

Commissioner SWEET. Do you remember how much less?

Mr. STUART. I think I can give it to you in percentage. I should say between 15 and 20 per cent.

Commissioner SWEET. It was slightly less, then, than the physical valuation of the property?

Mr. STUART. As to bonds; yes. The depreciated physical value was in excess of all of the bonds outstanding, including both first and second mortgage bonds. It was at least 40 per cent in excess of the first-mortgage bonds outstanding; and that is depreciated physical value.

Commissioner SWEET. Have you ever had any experience with any company conducted upon the service-at-cost plan?

Mr. STUART. No, sir.

Commissioner SWEET. That would be quite different from the Kansas City plan, would it not?

Mr. STUART. Very different; yes, sir.

Commissioner SWEET. Have you any views on that system, as to whether it will work any better than the Kansas City plan did?

Mr. STUART. Yes, sir; I think it would. As an investment banker my idea as to credit on which a street-railway company can borrow money in the future, is that it will have to be on some plan where the street-railway company will be permitted to earn all its operating

expenses, proper maintenance, proper depreciation, and a rate of interest on the capital invested which will attract capital.

Commissioner SWEET. What would that rate be, in your judgment, now?

Mr. STUART. That is a rather difficult question to answer, because the street railways are in such bad repute. But assuming that they were brought to the same standard in public estimation that, we will say, first-class electric companies are in—

Commissioner SWEET. Do you mean lighting companies now?

Mr. STUART. I mean lighting and power companies.

Commissioner SWEET. Yes.

Mr. STUART. The rate, I should say, would be from six to six and a half per cent on senior securities. By "senior securities" I mean first-mortgage bonds.

Commissioner SWEET. Yes.

Mr. STUART. Further, my idea of the financial arrangement of the future, assuming street-railway companies are going to be privately owned and give first-class service and make extensions when needed, is that the relationship between the municipality and the railway company will have to be such as that it will be attractive for a stockholder, or for a man who buys stock, to invest in stocks, because it is bad finance, and will never work out for any corporation to keep on borrowing money, always putting out senior securities. It must have a senior security, which will necessarily bear a comparatively low rate of interest, and a junior security furnishing the margin, which would bear a higher rate of interest. In other words, the first-mortgage bonds and stock. Unless some plan for safe credit is worked out, it is hopeless for street-railway companies to expect to get money, in my judgment.

Commissioner SWEET. As the situation is to-day, Mr. Stuart, if I understand you right, it is impossible for street-railway companies to get any new capital, practically.

Mr. STUART. Practically; yes.

Commissioner SWEET. Do you mean taken as a whole?

Mr. STUART. Practically so.

If you will let me interrupt for a minute, I can tell you just what the exceptions are.

Commissioner SWEET. Yes, sir; I wish you would do that.

Mr. STUART. The exceptions are only those properties that have been financed by strong banking houses, who have to refund a maturing obligation in order to make the rest of the securities they have sold good. Generally speaking, there is no market for street-railway securities to-day.

Commissioner SWEET. In the case that you speak of, would it mean that the companies are not earning enough to justify investors in putting in new money, but that they are being held up by bankers and new capital that comes in for another reason than that of investment?

Mr. STUART. For both reasons. There are few properties that are making any kind of a showing on their senior securities. I refer to Kansas City again. We have taken securities of that company. My firm has taken securities of that company which it has not tried to sell, and won't try to sell, in the effort to make all the millions that

we have sold good, and we never will market those securities, we never will ask anybody to buy any of them until we can go to them and say, "These securities are again safe, in our judgment."

Commissioner SWEET. You are doing that to protect your patrons?

Mr. STUART. We are doing that to protect our patrons and the patrons, the widows and orphans, the insurance companies, and the people that we have sold these securities to.

Commissioner SWEET. And incidentally to protect your own reputation?

Mr. STUART. Yes, sir; but regardless of the reputation, every banking house has some responsibility in connection with the securities it sells.

Commissioner SWEET. Yes.

Mr. STUART. And we propose to live up to our responsibility to the utmost.

Commissioner SWEET. That is taking what I would call a moral stand.

Mr. STUART. Yes, sir.

Commissioner SWEET. That is right in itself.

Mr. STUART. Yes, sir.

Commissioner SWEET. And perhaps the best policy in the long run for those who want to keep on doing business.

Now, Mr. Stuart, if the companies, as a rule, throughout the country, can not get new capital, they can not make extensions, nor keep up repairs, nor really continue to do business very long, can they?

Mr. STUART. They can not.

Commissioner SWEET. So that, as you see it, as I got it from what you have already said, the general public has got to sit in, in some shape or other, either as owners or owners and operators of these companies, assuming now that they are to continue to operate, and thereby subject the general taxpayer to, perhaps, the necessity of making up for losses, or else in some other way the general public must come in as sort of guarantors under the plan that has been mentioned here. We will say service at cost. If that were carried out properly, I suppose the burden would fall upon the patrons of the company, would it not, instead of upon the general community?

Mr. STUART. Yes, sir.

Commissioner SWEET. Which would seem to be more just than to have it fall upon the whole community, would it not?

Mr. STUART. That has always been my opinion, that the street railway company should be permitted to operate so that its patrons should pay the cost.

Commissioner SWEET. But under the supervision of the municipality or State commission of some kind—

Mr. STUART. I am thoroughly in favor, from an investment banker's standpoint, of supervision of public utilities.

Commissioner SWEET. Would you make a distinction there between its being done by the municipality itself or by a State organization?

Mr. STUART. Certainly, I would much rather it be done by a State public-utility commission. I believe that is freer from local prejudices, and it is in a position to render a fairer judgment on any question than local authorities would be.

Commissioner SWEET. Then all the municipalities of the State would be on an equal basis, and under the supervision of the State organization.

Mr. STUART. Yes, sir.

Commissioner SWEET. And the interest of the general public would be looked after by that State organization or commission, and the users of the street railways would be the ones who would pay more or less, according to the needs, thereby getting at actual cost—or as near as may be at actual cost—the conveniences of street railway service.

Mr. STUART. Yes, sir; I think that is just.

Commissioner SWEET. Have you any other plan than that to suggest as being worthy of consideration by this commission?

Mr. STUART. No, sir. My general idea is the one I spoke of in regard to a basis of credit. As to just what in detail should be done generally, I have no definite plan.

Commissioner SWEET. In regard to an indeterminate franchise, such as you spoke of, would there be any means, according to your plan—the plan which is in your mind—by which the franchise could be terminated at all? Would the public have any control over it, so that on the happening of any possible event the public might step in and terminate the franchise, or would it be absolutely indeterminate?

Mr. STUART. I should say that it should be an indeterminate franchise, the company to be regulated by public authority.

Commissioner BEALL. May I ask him one question there, Mr. Commissioner Sweet?

Commissioner SWEET. Certainly.

Commissioner BEALL. Mr. Stuart, in the States that now operate under indeterminate permits, like Wisconsin, for instance—and there are a number of States that have that plan for public utilities—do not all of those permits provide that the continuance of the permit is subject to the good behavior on the part of the corporation?

Mr. STUART. They do.

Commissioner SWEET. So that there would be an impossibility of terminating it upon the happening of some possible event, would there?

Mr. STUART. Yes, sir; as a basis for extending credit, I should say that would be perfectly proper, because, under such an arrangement, practically everything would be agreed to in advance as to what could be done and what could not be done.

Commissioner SWEET. Yes.

Mr. STUART. And it would be some very flagrant happening under which the municipality would want to terminate the franchise. I take it that the street railway corporation is a necessity, and if it is not operated under private ownership, then it must be operated under public ownership.

Commissioner SWEET. Don't you think it would be possible under that sort of a contract to provide that the municipality might purchase it, if it saw fit, at a future period?

Mr. STUART. Yes, sir; I think that would be quite proper.

Commissioner SWEET. Is not that ordinarily put into such a franchise? Has it not been in the States where they have them?

Mr. STUART. It has been put in in a number of special cases that I know about. And, if I am not mistaken, in Wisconsin, when you take out an indeterminate permit, the municipality has the right to purchase it at an appraised value.

Commissioner SWEET. Where receivers have been appointed, as they have been in many instances, have the results been generally more favorable than under the control of the companies themselves?

Mr. STUART. Oh, I think so.

Commissioner SWEET. The results have been——

Mr. STUART. From every standpoint.

Commissioner SWEET. From every standpoint?

Mr. STUART. From every standpoint. In the first place, a receiver is not appointed unless the property is in trouble.

Commissioner SWEET. Yes.

Mr. STUART. And it is usually in trouble on account of earnings.

Commissioner SWEET. Yes.

Mr. STUART. The receiver has a job representing the court. It is usually more or less a temporary job.

Commissioner SWEET. Yes.

Mr. STUART. And one of the first things he seeks to do is to cut down service and cut down maintenance, in order to make the net earnings larger and make a little better showing. My observation is that properties in receivers' hands are not nearly so efficiently operated as under private management.

Commissioner SWEET. Not as efficiently operated?

Mr. STUART. Not as efficiently operated.

Commissioner SWEET. That would depend somewhat upon the ability and experience of the receiver, I suppose; would it not?

Mr. STUART. It would undoubtedly depend upon the ability of the receiver; but the receiver can not be as interested to operate that property for the benefit of the community and for the future as the permanent owners of the property would be. He has not the same interest.

Commissioner SWEET. Under the service-at-cost plan, is it customary, or do you think it would be right, that there should be a limitation as to the salaries drawn by the managing officers of the company?

Mr. STUART. I have not thought about that phase of it; but the public, in the interest of the public, would naturally want to allow enough salary to attract the kind of talent that would efficiently administer the property.

Commissioner SWEET. That would seem to be essential, and yet you are aware of the fact, are you not, that public officials in most cities are not very well compensated; in other words, that the public is rather stingy in its compensation of its officers?

Mr. STUART. Shamefully so, I think.

Commissioner SWEET. But it is against public interest, is it not? Would it not pay the public to be more generous in the payment of salaries and get higher-grade men?

Mr. STUART. Undoubtedly. For instance, take the public commissioners of States, who are called upon to pass upon enormous investments in property, and to use their time, judgment, and experience. I have always thought that the pay that they got was nowhere near commensurate with the judgment and experience required.

Commissioner SWEET. Have you had experience with commission form of government in cities?

Mr. STUART. Do you mean have we handled securities—

Commissioner SWEET. Has your business brought you in contact with cities that are governed under the commission form of government—the newer form of city government? The city of Buffalo is now the largest city in the United States governed that way, I think, but there are Des Moines, Galveston, and a great many other cities that are governed that way.

Mr. STUART. Yes; we had a lot of experience with Galveston. In fact, my firm bought the first bonds that Galveston issued after their earthquake down there.

Commissioner SWEET. Yes; I wanted to ask you as a matter of information, whether you are familiar with cities governed in that way and whether you have noticed any disposition to be more liberal in the payment of salaries of officials, especially of city managers.

Mr. STUART. I am afraid I am not sufficiently familiar with that, except that I have had enough experience in Galveston to believe that everything in that city is done on the most businesslike basis.

Commissioner SWEET. You made the remark that all healthy companies needed a continual increase of capital, and if a company was not needing more money—more capital—then it was not in a healthy condition. Did you not say that?

Mr. STUART. I did; and that is true, in my opinion.

Commissioner SWEET. Do you base that upon the ground that a healthy company is continually expanding—

Mr. STUART. A public-service company, like an individual or like any private business, can not stand still. It either has to go forward or go backward. If it goes ahead, it needs more money; it needs more capital all the time.

Commissioner SWEET. And that could not be properly provided for by earnings?

Mr. STUART. Earnings would not be sufficient to provide, in my opinion, for the additional capital required by any growing public-service corporation.

Commissioner SWEET. That is all.

Mr. WARREN. Mr. Stuart, did you say that under that Kansas City franchise five directors were named by the city?

Mr. STUART. Five by the city and six by the company.

Mr. WARREN. You spoke of a rate from 6 to 6½ per cent on senior securities of street railways, if the street railways were now enjoying the same position in public confidence that the electric-lighting companies enjoy, and of a higher rate for the junior securities, which I suppose is ordinarily stock.

Mr. STUART. Ordinarily I assume to be stock.

Mr. WARREN. How much higher?

Mr. STUART. Well, I should say from 1 to 2 per cent.

Mr. WARREN. Higher than—

Mr. STUART. Higher than the senior securities.

Mr. WARREN. Is there any general rule or practice in investment banking houses respecting the earnings which a utility should show in excess of the interest required on the bond issues?

Mr. STUART. There is not any general rule. But, as I said in the beginning, the investment banker has no control over money of his clients; and unless you present a street-railway security, or any other security with a proper value and proper earning restriction, proper

earnings statement, proper depreciation fund, or proper sinking fund, proper escrow provisions in the mortgage, the investor won't buy it. Unless he thinks he is well protected, the buyer of bonds would not buy bonds. He is conservative, and unless he thinks he is well protected, he won't buy bonds.

Mr. WARREN. As far as the earnings are concerned, he would expect the company to show considerable earnings in excess of the money necessary to pay the interest on the bonds?

Mr. STUART. The general rule, without, however, being a rule, is that the senior security, the first-mortgage bond, to be considered a safe security and to be in good standing, should earn twice its interest charges, or more.

Mr. WARREN. You want to get a train, and I think you will just have time to do it.

Mr. STUART. I thank you very much.

Mr. WARREN. I am very much obliged to you.

Commissioner SWEET. At the service-at-cost plan, would not the senior securities, the stock and everything, be substantially on the same basis, and all practically guaranteed by the public?

Mr. STUART. No. They would, to some extent, but there might be conditions that would come up in any one year that would make the showing for the junior securities a little less favorable, perhaps, than it should be. Then, another thing: The buyer of the senior securities, if he has a big equity behind him, is going to buy those securities at a good deal less rate of interest than he would were he furnishing all the money, and at times of panic or times of stringent money, when the street-railway company finds it necessary to borrow, if they have a senior security which has a big equity behind it in the shape of junior securities, they can always raise the money on those senior securities, either by selling the securities, or by hypothecation, until such time as money conditions ease up. For instance, the average rate of interest—suppose that it should be, we will say, 7 per cent. Now, if you paid 8 on your junior securities and 6 on your senior securities, the average, you will see, would be 7 per cent, a very much better financial set-up, and if a corporation is always in a position to borrow money, it is always sure of serving the public properly.

I would like to say a word just from an investment banker's standpoint, and I know most of the investment bankers of the United States. We look upon this commission almost as the court of last resort in this matter. We feel that the decision of this commission is going to have the same effect upon the public as the War Labor Board's decisions had on the public; and we are, therefore, very, very deeply interested, and all of us are anxious to do everything we can; but we think that this is about the last chance, and that whatever you gentlemen decide is going to go a very long way toward molding public sentiment, out of which we hope for better things.

Commissioner SWEET. Do you think, Mr. Stuart, that the employees of street-railway companies and the general public are equally interested with the investment bankers and the companies themselves, substantially?

Mr. STUART. Well, I may not have the correct view of that, but I do not think so. I think the solution of this is between the public and the railway companies, and the relations between the employer and employee would be just like they would in any other company.

The employee must be well paid. He should be well paid. Everybody wants him well paid. But the public should see that the employer gets a rate with which he can afford to pay those wages.

Commissioner SWEET. As between the investor and the general public, the advantages of settling this question and settling it right are substantially the same.

Mr. STUART. Yes; I agree with you.

The CHAIRMAN. You will be excused, Mr. Stuart.

Mr. WARREN. Mr. Chairman, at this point I should like to read a letter which Mr. Tripp received from Mr. Hurley, who was asked to come before the commission but was unable to attend, and if I may, I would like to read it now before I call my next witness:

UNITED STATES SHIPPING BOARD,
Washington, July 15, 1919.

Mr. GUY E. TRIPP,

*Chairman Federal Electric Railway Commission,
Washington, D. C.*

DEAR MR. TRIPP: I have been requested to appear before you as a witness in your pending investigation of the problems which confront electric railways of the United States. It is impossible for me to appear in person without neglecting other public duties to which I am committed, and I trust that you will permit me to submit and record for your consideration the following facts in written form:

The United States has been developed with unparalleled rapidity through the construction of transportation facilities by men of vision and initiative. Thus our great national industry has been built up by transportation which has heretofore preceded, led, and actually made possible and brought about the wonderful development of the natural resources of this country and our national prosperity.

In the early days our national, State, and municipal authorities realized the absolute necessity of fostering the construction of transportation facilities as an essential factor in the development of our country, and subsidies in the form of land and money were granted, thus aiding in their establishment.

Adequate and efficient electric railway facilities are just as essential to the proper development, welfare, and prosperity of our cities and populous communities as the transcontinental trunk lines are to our country at large. They should be fostered and safeguarded accordingly.

Unfortunately pioneers who promoted the construction of many electric-railway properties pursued practices which have saddled on the traveling public excessive charges in the form of excessive amount for promoters' profits rather than for construction costs. These practices naturally brought about public antagonism.

The United States Shipping Board Emergency Fleet Corporation had occasion during the war to require many electric-railway companies to enlarge their facilities sufficiently to carry great numbers of shipyard workers between their homes and the shipyards. We thus were brought intimately in touch with the electric railway industry and its requirements on all seaboard of the United States.

We found in many instances that the companies were financially impotent, owing to their having been prevented increasing their rates to a sufficient extent to cover the increased costs of operation and a reasonable return on the capital already invested.

We have found that this condition applies to many companies throughout the entire country and is mainly responsible for the unsettled condition of the electric-railway industry to-day.

In many cases the War Labor Board in Washington, in endeavoring to meet war conditions, raised the wages of the street-railway employees with the thought in mind of preventing widespread strikes, they being fearful that strikes might spread and develop a serious situation. But in their anxiety to settle labor difficulties promptly they naturally were unable in the emergency to take into consideration all the conditions, as it was their task to prevent serious labor difficulties.

Now that the war is over and it is recognized that wages are not likely to be reduced, when the facts show that certain street railways can not be op-

erated under the present high cost of materials and labor, so as to yield a just return on the capital invested, it appears to me that there is only one remedy and that is authority to increase the fares. The public interest requires first-class service and the public is willing to pay additional fare.

With the whole world endeavoring to improve its transportation services both on land and sea, and spending millions of dollars experimenting on transportation in the air, it is most important to the future prosperity and comfort of our people that the street railways be placed in a position where first-class service will be given the public at a just cost under the supervision of broad minded, sound commissions. If State and National Governments are to determine what is a fair street-railway wage scale, then they should also assume the responsibility of determining and establishing what is an adequate street-railway fare, and they should willingly, when the facts are presented, meet the new conditions by authorizing street-railway companies to increase their fares.

It is clear that every electric-railway company should be freely accorded the right to establish such rates as are necessary to meet operating costs, including maintenance and depreciation, and a reasonable return on the capital invested. If they are to be denied this right, it is perfectly clear that no additional capital can be safely invested in electric-railway securities, that our electric railways will be unable to meet their obligations to the public and their security holders.

As soon as the American public and the street-railway corporations of this country are brought to a settled understanding of what constitutes fairness in their mutual relations, your problem will be solved. Capital already legitimately invested in public service will be safeguarded, the credit of our legitimate electric-railway companies will be restored, new capital will be available to them as required for the development and expansion of their facilities to meet the requirements of the public, and the public will enjoy efficient, safe service.

The true value of an electric-railway property is the legitimate cost incurred in establishing and developing its business, and that any method of valuation which disregards this principle is not fair.

The capital invested in an electric-railway property is certainly entitled to a profitable return from the time it is placed at risk in the enterprise and the public interest is best served when a fair return is paid on capital.

An electric railway is entitled to include in its cost of service not only its current operating expenses but due allowance for renewals and depreciation.

Therefore, these are all elements which must be included in valuing an electric-railway property for rate-making purposes.

If you can clearly and firmly establish these fundamental principles, you will save an important industry and perform a great service to the American public.

Very truly, yours,

EDWARD N. HURLEY, *Chairman.*

MR. WARREN. I think I mentioned yesterday morning something about Massachusetts investments. It might interest the commission at this point, after Mr. Stuart's testimony, if I were to read the figures which I prepared for an argument before the Massachusetts commission which was considering this same general question that your commission is considering here for the whole country. They were considering it merely for Massachusetts. These figures, I believe, were authentic. They were made up from the reports of the various street-railway companies as regards to stockholders and from the saving bank and insurance commissioners' reports for Massachusetts as regards those two classes of securities, and they relate to the year 1915. At that time there were \$102,493,675 of capital stock outstanding which under Massachusetts laws is all issued at 100 cents or more on the dollar. There was represented in addition to the par value of that capital stock paid into the companies under the laws of Massachusetts, which requires stocks if they are selling at over par to be issued at a price above par, the money being paid into the corporation—there were in premiums so paid to the corporations \$6,659,611, or in round numbers about

\$109,000,000 of capital stock or what amounted to the same thing, paid in premiums on capital stock, and there was \$91,834,700 of funded debt.

The number of people interested in the stock of those street-railway companies in 1915 was 26,000. There were 26,000 investors interested in the stock. In the bonds there was nothing available at that time as to the number of bondholders, but the savings bank and insurance reports did indicate the extent to which the bonds were held by those two classes of corporations; and it appeared that \$31,414,100 of street-railway bonds, which was a little more than one-third of the total, were held by Massachusetts savings banks on October 30, 1915; \$5,758,000 of the bonds were held by Massachusetts life insurance companies, and \$1,138,000 by other Massachusetts insurance companies. The total held by savings banks, life insurance, and other insurance companies was \$38,310,100, or about two-fifths of all the bonds which those street railways had outstanding in 1915.

The CHAIRMAN. Did the bonds and stocks apply to railroads operating wholly within the State of Massachusetts?

Mr. WARREN. Yes; substantially so. There may be one or two which operate without the borders to a neighboring town. There is one, I think, that operates a little way over into New Hampshire and one that operates a little way into Rhode Island; but substantially they are corporations operating in the State of Massachusetts. As far as the savings bank law is concerned that is confined to the Massachusetts street-railway companies.

STATEMENT OF MR. HENRY G. BRADLEE.

Mr. WARREN. Your full name is?

Mr. BRADLEE. Henry G. Bradlee.

Mr. WARREN. You are connected with the Stone & Webster organization?

Mr. BRADLEE. I am a member of the firm of Stone & Webster.

Mr. WARREN. And that firm, as I think appeared from Gen. Tripp's testimony this morning, has had a great deal to do for a long period of time with street railways among other public utilities, has it not?

Mr. BRADLEE. We have been interested in the public-utility business for nearly 30 years. We have under our charge the operation of some thirty-odd public utilities, electric light, gas and street railways, of which about 25 are either street railway or combined railway and electric-light properties. We have also been called on to examine and report on many street railways in which we are not directly interested, to advise the owners as to methods of handling their property, also to help out certain receivers in the handling of their present difficulties.

Mr. WARREN. Have you personally had a great deal to do with the street railway properties?

Mr. BRADLEE. For the last 18 years I have been the executive head of the so-called management division of our firm and in that capacity have had general charge of the management of all of the properties.

Mr. WARREN. Mr. Bradlee, in connection with the street railways over which you have had charge, what is your experience as to the

need of additional capital by such companies from time to time, and how regularly is that need shown?

MR. BRADLEE. I have prepared certain figures and brought them with me covering specific cases, with the idea that that might be more valuable to the commission than general figures.

Before taking up the matter of additions to capital, I would like to say just a word on the amount of capital, as a whole, required in the street-railway business.

About three years ago we had occasion to examine for our own information, or investigate for our own information, the amount of capital required for various branches of industry. That investigation extended over a period of about a year. We obtained data from many different industries of all sorts and kinds, and while the figures which we obtained are of course not accurate as applied to the industries as a whole, they are indicative at least of the amount of capital required to carry on these various types of industry.

When our figures were completed, a diagram was prepared showing the amount of capital required to carry on a business of \$100,000 in gross earnings. I have several copies of this diagram here which I thought might be of interest to the commission [handing papers].

THE CHAIRMAN. Have you enough to supply each member?

MR. BRADLEE. Well, I will send some more. There are three there.

You will see from this diagram that the amount of capital required to carry on, for example, the construction business, that is a contract, is low. A capital of less than \$50,000 will do \$100,000 of business. The same is true in what we have termed the trading—that means retail and wholesale business. In manufacturing, the capital appears to just about equal the gross annual business transacted. In mining, due to the large amount of investment in mining lands, mineral lands, the investment materially increases. Then we come to the group of public utilities—telephone, gas, electric light, street railway and steam railway, in which the capital required is from \$400,000 to \$500,000, at least, to carry on \$100,000 of gross earnings. Last of all is agriculture, which is even higher than public utilities.

I want to call your attention particularly to the part of the diagram which is shown in red. That represents the operating plant, the investment in operating plant. You will see in that case that the public utility stands out even more markedly than in the total capital. There is no other industry which apparently requires an operating plant equal to its annual gross earnings. The public utility requires a plant several times its annual gross earnings, from four to five times.

Now this has a direct bearing on the earnings of the utility—the necessary earnings. If a retail merchant is able to turn over his capital three times a year and in turning it over makes $3\frac{1}{3}$ per cent profit on each turnover, he will make 10 per cent a year on his entire investment. A public utility, on the other hand, will turn its capital over only once in every four to five years, and in order to make a reasonable return on that capital, or rather to make the same 10 per cent—if it were 10 per cent—it would be necessary to pay out from 40 to 50 per cent of the gross earnings as a return on the investment. In other words, the trader or merchant may get along with $3\frac{1}{3}$ per cent profit and earn 10 per cent on his capital, whereas the public

utility must pay out 40 to 50 per cent of its gross to earn an equal return on the public-utility capital.

The capital requirements of the public utility are not, as they are sometimes supposed, paid in in the creation of a property at the start and then continued at a more or less uniform rate. On the contrary, there must be, as Mr. Stuart told you, a continual contribution of capital year by year and month by month. The public utilities in all parts of this country are growing and growing steadily, and there is continually increased demand for service due to increased population and also to increased demand per capita in a given population; and to meet this increase in service, it is necessary for the public utility to continually add to its investment.

The addition of capital follows very closely the increase in business. I have brought with me here two charts of one of our street-railway companies; they are identical. And on those charts you will see two lines. The black line shows the increased investment in the property, starting at the beginning of the period, and then running through the long series of years, adding each year the new capital which was invested that year, in that way producing the black line which you see on the curve. The green line is four times the increase in gross business, and those two curves, as you will see, run very closely together, showing that we have invested, year by year, four dollars of new capital for each dollar of increased gross business, and that it has been necessary to do that in order to adequately carry on that business and serve the public.

Similar curves covering an electric-light company—a company in Lowell—will show very similar results. For instance [handing chart to the commission], you will see in both the electric-light and the street-railway property the investment has followed very close with the increase in business; the curves are not identical, but they are very close to it; and in each case the additional money, the capital required, has been about four times the increase in gross business.

I have also brought with me a statement which I will hand you.

The statement produced by the witness is as follows:

Approximate gross earnings and approximate expenditures for construction of Stone & Webster companies for the years 1902 to 1918, inclusive.

Year.	Gross earnings.	Construction expenditures.
1902.....	\$3,585,000.00	\$2,750,000.00
1903.....	6,338,000.00	3,622,000.00
1904.....	8,482,000.00	2,414,000.00
1905.....	9,504,000.00	2,900,000.00
1906.....	12,212,000.00	5,000,000.00
1907.....	13,776,000.00	8,500,000.00
1908.....	16,357,000.00	6,962,000.00
1909.....	19,133,000.00	5,703,000.00
1910.....	20,747,000.00	7,286,000.00
1911.....	21,389,000.00	9,077,000.00
1912.....	23,925,000.00	5,467,000.00
1913.....	26,305,000.00	7,531,000.00
1914.....	28,881,000.00	6,840,000.00
1915.....	27,044,000.00	3,371,000.00
1916.....	29,456,000.00	3,736,000.00
1917.....	31,029,000.00	5,001,000.00
1918.....	36,322,000.00	5,691,000.00
Total.....	334,485,000.00	91,852,000.00

The figures from 1902 to 1907 cover a considerable number of companies. The cost of constructing the Puget Sound Railway, the Puget Sound power development and the Taylors Falls power development are eliminated.

The figures from 1908 to 1918, inclusive, cover all Stone & Webster companies.

The cost of the Verdi power plant, the Goat Rock development, the Citizens' Railway Company (Northern Texas Traction), the Galveston-Houston Interurban, Mississippi River power initial development, Falls Village development, Dallas Terminal investment, and all intangibles are eliminated. The Minneapolis figures are eliminated from both gross and construction and Connecticut power earnings from 1913.

Comparison of rates of increase of gross earnings of Stone & Webster companies.

Year.	Percentage increase in gross earnings.		Year.	Percentage increase in gross earnings.	
1902.....	20.0		1912.....	10.0	
1903.....	16.0		1913.....	10.0	
1904.....	10.0		1914.....	2.1	
1905.....	12.5		1915.....	6.3	
1906.....	18.0		1916.....	8.9	
1907.....	19.0		1917.....	13.4	
1908.....	5.0		1918.....	18.7	
1909.....	16.0		Average.....	10.7	
1910.....	5.0				
1911.....	3.8				

Year.	Percentage increase in gross earnings.	Amount spent on construction per \$100 of gross earnings.	Year.	Percentage increase in gross earnings.	Amount spent on construction per \$100 of gross earnings.
1902.....	20.0	\$76.00	1909.....	16.0	\$30.00
1903.....	16.0	57.00	1910.....	5.0	35.00
1904.....	10.0	28.00	1911.....	3.8	42.00
1905.....	12.5	31.00	1912.....	10.0	23.00
1906.....	18.0	42.00	1913.....	10.0	29.00
1907.....	19.0	62.00	Average.....	12.1	37.00
1908.....	5.0	43.00			

Year.	Percentage increase in gross earnings.	Amount spent on construction per \$100 of gross earnings.	Year.	Percentage increase in gross earnings.	Amount spent on construction per \$100 of gross earnings.
1902.....	20.0	\$76.00	1912.....	10.0	\$23.00
1903.....	16.0	57.00	1913.....	10.0	29.00
1904.....	10.0	28.00	1914.....	2.1	24.00
1905.....	12.5	31.00	1915.....	6.3	12.00
1906.....	18.0	42.00	1916.....	8.9	13.00
1907.....	19.0	62.00	1917.....	13.4	11.00
1908.....	5.0	43.00	1918.....	18.7	11.00
1909.....	16.0	30.00	Average.....	10.7	27.00
1910.....	5.0	35.00			
1911.....	3.8	42.00			

Mr. BRADLEE. On the first sheet of the four pages I have just passed up, you will find the gross earnings of the group of properties

which we manage, from the year 1902 to 1918, showing the gross earnings of the properties in each year. The second column shows the construction expenditures for additions to those properties each year. In making up the construction expenditures we have omitted certain large expenditures which were in the nature of new developments rather than of additions to existing property. For example, we built an interurban road between Galveston and Houston. It is owned by the same company which owns the street railway in Houston and the same company which owns the street railway in Galveston; but we operated that as a new proposition and did not include it in here under the construction expenditures for additions to property. We have omitted certain water powers and others large items of that kind. So that these figures of construction expenditures cover merely the extensions and development of existing property.

Commissioner MEEKER. Why the tremendous drop from 1914 to 1915 in construction expenditures?

Mr. BRADLEE. I will come to that in a moment.

On the second sheet you will find the percentage increase in gross earnings of the group of companies. In the year 1902 it was 20 per cent and in each year there has been an increase, the minimum being 3.8 per cent, with the exception of the year 1917, in which there was a decrease of 6.3 per cent. That decrease was due very largely to the effect of the jitney bus combined, in certain sections of the country, with poor general business conditions. Following, in 1916, the jitney disappeared to some extent and the gross earnings increased again. In the last year, 1918, the gross earnings have increased 18.7 per cent or almost as high as the maximum of any year since 1902.

On the third page you will find repeated the percentage increase in gross earnings for the years from 1902 to 1913, and also the amount spent on construction extensions per hundred dollars of gross earnings. In other words, in 1902 for every \$100 of gross earnings of this group of companies, it was necessary to spend \$76 in additions and extensions. The average for the entire period 1902 to 1913 is \$37 expended on extensions and improvements for each \$100 of annual gross earnings.

On the fourth page the figures are identical with page 3, except they have been continued from 1913 to 1918. The original figures, as it happens, the first page, was made up in 1914 and this second page was made to bring it up to date. You will note that the high rate of investment continued up to and including the year 1914. In 1915 we had conditions which had been brought about by the jitney; we had the beginning of the war period, and every effort was made to keep down further extensions to property. During the war period we have continued that policy, and of course during the past year and a half the Government, through the Securities Issues Committee, has prohibited the utilities from spending any money on improvements or extensions other than such as was absolutely necessary. In addition, there has been the difficulty of selling securities of which Mr. Stuart spoke to you.

Now those figures of the last four years mean this: The companies have gone on increasing in gross earnings. In 1916 they increased 8.9 per cent; in 1917, 13.4 per cent, and in 1918, 18.7 per cent; but we have not spent during that period anything like an adequate amount to take care of that increased business. We have been in one sense

living on our fat—we have been calling on our power plants, our track, our cars, to carry more than their normal amount of load, and we have taken chances of breakdowns and interruptions to service which in normal times we should not do. That means that these properties at the present time are below par. They are not developed to the extent they should be normally to handle the volume of business which they now transact.

To meet that situation and to adequately serve the public we must not only meet future extensions but we must make up for what we have failed to spend in the last four years so that the demand for additional capital during the next four years, if we are to adequately serve the public, must be above normal to offset the four years which are below.

Mr. WARREN. Did you state, Mr. Bradlee, whether that statement consisting of four pages related to all the utilities under the management of Stone & Webster or street railways?

Mr. BRADLEE. It relates to all of the utilities, street railway, gas, and electric light. I was unable to separate them out in the time allowed. In fact, I do not believe we could separate them out, because many of the properties are combined companies, the same company doing street-railway and electric service, and it would be difficult if not impossible to separate many of the construction expenditures and determine exactly what should be apportioned to the street railway and what to the electric-light company.

The CHAIRMAN. You stated there were 35 companies being operated by Stone & Webster?

Mr. BRADLEE. Approximately; yes.

The CHAIRMAN. Of that number, how many are street-railway companies?

Mr. BRADLEE. Approximately 25 are either street railway or combined street-railway and light companies.

The CHAIRMAN. You are quite familiar with the street-railway companies operated by other concerns throughout the country?

Mr. BRADLEE. Many of them.

The CHAIRMAN. Do you feel that your companies are quite typical of the companies giving service in other sections of the country?

Mr. BRADLEE. I think they are reasonably typical of what has occurred in the industry—yes.

The CHAIRMAN. Do you feel that the other companies have been devoting about as much money to new construction annually as you have?

Mr. BRADLEE. About a year ago a report was made to Mr. John Skelton Williams outlining the conditions in the street-railway industry. If I remember the figures correctly, the gross earnings of the street railways were placed in that report at \$1,500,000,000. It was estimated that the annual expenditures for extensions and improvements would be from \$600,000,000 to \$700,000,000 a year. That would correspond very closely to those figures. Those figures would figure out just about \$600,000,000 a year on a gross business of \$1,500,000,000, so that the statistics which were gathered for all the companies correspond very closely with those for that group.

The CHAIRMAN. Your table shows that from 1902 to 1918 there was \$98,252,000 invested in construction expenditures.

Mr. BRADLEE. Yes.

The CHAIRMAN. Is that whole amount capitalized?

Mr. BRADLEE. No. A large part of it was.

The CHAIRMAN. About what per cent?

Mr. BRADLEE. Oh, I could not tell you. A certain amount came from earnings from companies that were not paying dividends, who earned their dividends but turned the money back into the property; but just what per cent that was I could not tell you.

The CHAIRMAN. How much of that money represents new capital?

Mr. BRADLEE. A large part of it represents new capital.

The CHAIRMAN. About what per cent?

Mr. BRADLEE. Oh, I could not tell you what per cent.

The CHAIRMAN. Of course your books show that?

Mr. BRADLEE. Oh, yes.

Commissioner BEALL. This gross earning which you gave on the first page, does that include the additional gross earnings which you derived from the new properties which you built and which you say were not included in the total of \$91,000,000 construction expenditures?

Mr. BRADLEE. No.

Commissioner BEALL. You have segregated that?

Mr. BRADLEE. Yes. Those gross earnings apply only to the companies to which the construction expenditures applied.

Commissioner BEALL. How could you show that where you developed new water power and built new power houses, as you did?

Mr. BRADLEE. We simply segregated that as we did in the Houston and Galveston interurban case.

Commissioner BEALL. But all your big developments on the White River and similar places, where you have spent many millions of dollars, but which brought in a lot of gross revenue, how did you get that out of this? I do not see how you could.

Mr. BRADLEE. The White River was included in this figure.

Commissioner BEALL. But you did not include the White River expenditure on the other side, did you?

Mr. BRADLEE. Yes; we included the White River expenditure in the years in which it was made, and included the earnings from the White River operation in the years following.

Commissioner BEALL. I thought you said you had not put it in your construction expenditures, a new line.

Mr. BRADLEE. When I spoke of a new enterprise I meant an entirely new thing—like a new interurban road, as distinguished from a water power which was built to supply a going concern.

Commissioner GADSDEN. This statement you have rendered is a combined statement of the three utilities, gas, water, and electricity, is it not?

Mr. BRADLEE. Yes.

Commissioner GADSDEN. If it were made up entirely of street railways, as you have in the first chart, the proportion of capital would be larger?

Mr. BRADLEE. The proportion of capital would be larger on the street railway than on the other two.

Commissioner GADSDEN. This chart shows a proportion of about four and a half to one.

Mr. BRADLEE. Yes.

Mr. WARREN. That proportion holds true as regards additional or increasing earnings and increasing capital expenditures, as I take it.

Mr. BRADLEE. Yes.

Mr. WARREN. The proportion is larger than that, is it not, as regards the original or initial capital?

Mr. BRADLEE. In some cases, yes, and in some cases it would be about the same.

Mr. WARREN. In some cases it would run five or seven to one, would it not?

Mr. BRADLEE. Yes; it certainly would. I might say that those figures, you will understand, are average figures. We have one public utility, a large water power, which was built entirely new and in which the investment is 10 to 1. So that those figures should not be used or considered as applying definitely to any particular industry. They simply represent the average of the group.

Now, to meet the requirements, such as those, we must sell securities. There is no other way to meet them. The earnings of the properties are not adequate to even meet operating expenses—I am speaking of street railways now—to meet operating expenses, taxes, and interests on bonds, in many cases. There is nothing left there to apply to extensions and improvement. It must all be obtained from the investor in some form, and unless it is obtained from the investor it will be hopeless for the street railways to attempt to adequately serve the public. The service to-day is inadequate. It will continually grow more and more inadequate unless some means is found to improve the credit of the street railways and enable them to raise the money needed to meet these demands for further service; and that amount of money, as is indicated in these figures, is a very large sum in proportion to the gross earnings of the company.

The railway industry as a whole must, in some way, if it is to fairly serve the public, raise six or seven hundred million dollars a year for new work, and in addition it must provide for the refinancing of maturing obligations to an amount varying from \$250,000,000 to \$300,000,000 a year. So that there is approaching a billion dollars a year to be raised in some way for the street-railway industry in order to adequately serve the public.

The CHAIRMAN. Would it be convenient for you to file a statement showing the amount of refunding obligations that are due in the next year?

Mr. BRADLEE. I think such figures are obtainable. We secured them for the report which was sent in to Mr. Williams, and I think they could be obtained for next year. I would be glad to try and see what I can get on that.

This portion of new capital, to my mind, is the crux of the situation. In many discussions of the public-utility situation the discussion has centered around what is a reasonable return on the capital that is now invested, and the suggestion has been made—I read just the other day the report of the committee of fifty or one hundred, I have forgotten which it was, in Denver, a committee of citizens who were appointed by the mayor to investigate the Denver situation. That committee made a very satisfactory and intelligent report in many ways, but then they went on to say: "Here is a bad situation. It is not anybody's fault in particular. The dollar has depreciated and everybody is suffering; the public is suffering and

must suffer through increased fare. The company, on the other hand, should share their part of the burden and take a moderate return on their investment and be satisfied with less than they might think was reasonable." That is all right; it may be perfectly fair and just as applied to the investment that is already there. But the city of Denver is going to grow. The city of Denver, if it continues as it has in the past, will have 10 years from now at least twice the investment in its street-railway system that it has to-day, and that money must come from somewhere.

Now the street railway should be looked on, as I see it, not as a static thing but as a growing organization, something which is expanding and extending all the time and which must extend and expand to adequately serve the public. It is possible to make a trade with the city by which the investment which has already been made shall accept what may seem an inadequate return, but that is only a half truth; it is looking at only half the situation. You can make a trade with a man who already has his money invested, but you can not make a trade of that kind with a man who is going to invest his money next year and the year after. That man will look at the situation in the street-railway field and compare it with the situation in other lines of industry. There is no situation that I know of where competition is keener than in the investment of money. The investor looks for the investment which he considers is going to be the most favorable for him, and that is the investment which he buys. Unless he can be convinced that he will have equal security and an equal chance for profit in the street railway or other public-utility industry that he can obtain in manufacturing and any other line of industry, he will put his money into manufacturing and not into the public utility.

Now that problem is the one which lies at the basis of the solution of this whole question. It is not the question of what money is in there so much as it is how are you going to get additional money in order to reasonably serve the public.

There are only two ways that I know of: One is to go to municipal ownership and have the city or State raise the money on city or State bonds. The other is to establish some plan under which the investor will feel that in the future he may count on a reasonable protection of his invested capital and a reasonable insurance of an adequate return.

I think that covers what I had in mind here on the capitalization end of the problem.

Mr. WARREN. Can you give the commission any information, Mr. Bradlee, about the increasing costs of operation during the last two years or the last three or four years?

Mr. BRADLEE. I received yesterday from Texas a letter and papers from three of our Texas companies in which our Texas managers had taken the operating expenses in two of the companies for the month of April, 1919, and in one company for the month of March, 1919. They listed on one of our regular sheets the expense items for those months of the year 1919. They then figured the cost of the same labor and material on the basis of prices of labor and material in March, 1913. In other words, they assumed that exactly the same number of hours of labor were spent, exactly the same materials

were used, but took the prices of 1913 and then refigured their operating expenses for the month. I will submit to the commission these sheets in detail and simply give a few summary figures.

The Houston Electric Co., figured on that basis, shows an increase in expense on the maintenance of way and structures of 76 per cent.

Mr. WARREN. That is one of the four important divisions of operating expense, is it not, Mr. Bradlee?

Mr. BRADLEE. Yes, that is an important division. On the maintenance of equipment the increase was 58 per cent. On the conducting of transportation—that means the operation of cars—an increase of 50 per cent. On general and miscellaneous expenditures, 32 per cent; an average for the total expense of 48.4 per cent.

In the case of the Houston company the cost of fuel was decreased by making that change. The cost of fuel in 1919 was less than the cost of fuel in 1913. That was due to the fact that we fortunately made contracts for fuel oil two years ago at a very low rate and those contracts are still in effect. If we were buying fuel oil at the present prices, there would have been a marked increase in the cost of fuel which would have increased these percentages.

Mr. WARREN. You made your contract at a lower price than the price in 1913?

Mr. BRADLEE. Lower than the price in 1913, so there is an actual saving in that item.

Mr. WARREN. I did not catch the figure for the total operating expense there.

Mr. BRADLEE. The total operating expense was 48.4 per cent.

Mr. WARREN. Increase?

Mr. BRADLEE. Increase. In the Northern Texas Traction Co., which is the company in Fort Worth, Tex., a street-railway company which operates the entire street railways in Fort Worth and two interurban lines—one between Fort Worth and Dallas and the other between Fort Worth and Cleburne—in this property, the increase in maintenance of way and structures was 63 per cent; in maintenance of equipment, 83 per cent; in conducting transportation, 57 per cent; in general and miscellaneous, 7 per cent, a total of 45 per cent for the entire property. In this case also we have a fuel oil contract so we are paying no more for fuel oil in 1919 than in 1913.

The third company is located in El Paso, Tex. It is a combined railway and lighting property, but the figures are separate for the two departments of the business. In the railway department, the maintenance of way and structures increased 47 per cent; maintenance of equipment increased 61 per cent; the total cost of conducting transportation increased 90 per cent; general and miscellaneous expenditures increased 27 per cent, a total for the entire company of 65.3 per cent.

This you will see as a total is considerably higher than the others, but in El Paso we burn coal. We had no contract, and the cost of fuel increased 107 per cent, which accounts for this increase. If the increase in fuel were eliminated, the increase in this company would be 48 per cent or practically corresponding with the other two companies.

Mr. WARREN. I thought as you read those figures that the transportation in the last company, the El Paso company, I think, increased more than it did in the companies preceding.

Mr. BRADLEE. That is because fuel enters into the cost of transportation; it is one of the items.

Mr. WARREN. It is not separated into power and—

Mr. BRADLEE. No. That enters in as one of the items under that heading. These figures I only received yesterday. These are the only copies I have, and I would like to take these home and have some copies made and then send them to the commission, if that meets with your approval.

The CHAIRMAN. Yes.

Mr. WARREN. You can not say, I suppose, from the figures there, how your operating ratio or operating railway revenue is affected by this increase. Does that appear?

Mr. BRADLEE. No, that does not appear. These figures simply cover the matter of expense. I might say, however, that the Houston company a few years ago was paying dividends at the rate of 6 per cent on its common stock. It now is not paying any dividends. It is barely earning the interest on its bonds. The Fort Worth company is more fortunate and is still paying some dividends on its common stock.

Commissioner GADSDEN. On account of the oil contract; is it not?

Mr. BRADLEE. On account of the oil contract to quite an extent; yes. It is a big help.

Mr. WARREN. And the other company was a combined company?

Mr. BRADLEE. The other company was a combined company. a large part of its business coming from electric light and power.

Mr. WARREN. What sort of franchises are these companies operating under in Texas?

Mr. BRADLEE. The ordinary old-fashioned type of franchise—limited term; none of the modern provisions of service-at-cost or anything of that sort.

Mr. WARREN. What is your opinion of those limited-term franchises, are they to the advantage of the public served by the company or not?

Mr. BRADLEE. I think they are very much to the disadvantage of the public served. As the franchise term expires it becomes more and more difficult to raise money needed for extension and improvement; and being more difficult, it must be raised on shorter and shorter term bonds or notes. They must be renewed more frequently, and each renewal costs money. The amount to be paid—that is, the rate of interest—is also higher, because the term is short and because the franchise is uncertain. My feeling is that the public is very much better off with some form of indeterminate franchise in which the public is adequately guarded through power to take over the property by the city if at any time they feel that that should be done.

Mr. WARREN. Is there also a tendency on the part of the company to neglect improvements and maintenance toward the end of the term, if there is anticipated difficulty respecting the renewal of the franchise?

Mr. BRADLEE. Inevitably. As you get toward the end of the franchise term, if you have doubts as to whether you are going to renew it, you do not put in much new money—you hold everything down to the lowest point that you can.

Mr. WARREN. And it used to be the case—I do not know whether it is still—that at the beginning of the term there was a certain cocki-

ness and indifference on the part of the grantees of the franchise respecting the wishes of the public.

Mr. BRADLEE. Well—

Mr. WARREN. Because they had a long period of enjoyment to look forward to. Was that true in some cases?

Mr. BRADLEE. I imagine it may have been.

Mr. WARREN. Have any of your companies operated under the service-at-cost principle?

Mr. BRADLEE. No; we have no companies operating under that principle. We have made a pretty exhaustive study of the service-at-cost franchise and of the results obtained in cities where it has been in effect. I believe a little later one of our men, Mr. Nash, is to talk to you on some phases of that.

In general, we believe that the service-at-cost franchise is working in the right direction, and we believe that some plan of this sort, something which is a distinct departure from former methods, is an essential to restore credit. There must be something definite and something radical done in order to change public sentiment, and the best solution from the standpoint of relations with the public that we have seen suggested is the service-at-cost franchise in some form.

Mr. WARREN. Have you had anything to do, Mr. Bradlee, with the sale and distribution of securities?

Mr. BRADLEE. Yes. We have a department for the sale and distribution of securities. The securities of our own properties are sold partly wholesale to bankers, who then distribute them to investors, and sold partly through our own securities department; so that we have had experience both in the wholesaling and retailing of public utility securities.

Mr. WARREN. Can you give the commission any impression as to the nature of that distribution—how widespread it is, how large the holdings average? You may have heard Mr. Stuart's testimony earlier this afternoon.

Mr. BRADLEE. I have no figures in mind, no definite figures, but my impression is that the securities of our companies are distributed fully as widely as Mr. Stuart stated was Kansas City's.

Mr. WARREN. And that would apply to a pretty large volume of securities?

Mr. BRADLEE. Yes.

Mr. WARREN. That is all that I wish to ask the witness.

The CHAIRMAN. I would be very glad if the commissioners desire to ask any questions that they do so.

Commissioner WEHLE. Mr. Bradlee, your statement which you filed with reference to Stone & Webster companies does not mention the number of companies involved in the statement nor the names of the companies.

Mr. BRADLEE. I would be glad to send that to you if you desire to have it.

Commissioner WEHLE. Could you add that to this testimony?

Mr. BRADLEE. I would be very glad to.

Mr. WARREN. You can state the number now.

Mr. BRADLEE. I think it is about 35.

Commissioner WEHLE. But some of them—we were not quite clear as to their exact nature; and I thought perhaps we could have it more definitely stated.

Mr. BRADLEE. Those are all public utilities and they are scattered all over the country.

Commissioner WEHLE. Then your statement, while it treats of the gross earnings, does not treat of net earnings. Would it be advisable, do you think, in connection with this statement, to let us have net earnings, or would you rather not include that in your statement for some reason?

Mr. BRADLEE. I have no objection to giving the net earnings, but what I was endeavoring to point out in those figures was the comparison of investment required and gross earnings; that is, the amount of new investment as compared with the volume of business transacted.

Commissioner WEHLE. The reason I ask for the net earnings in connection with your testimony is that it is not entirely clear, unless it is explained, just what you call your gross earnings, whereas net earnings have a more common definition or more universal definition than gross earnings.

Mr. BRADLEE. By gross earnings I mean the number of dollars taken in by the company in its business before any deductions are made.

Commissioner WEHLE. On what basis of accounting did you arrive at these gross earnings?

Mr. BRADLEE. We simply add up the nickels as they come in and the dollars as they are received.

Commissioner WEHLE. That is your gross earnings?

Mr. BRADLEE. That is our gross earnings; it is the total income.

Mr. WARREN. Without deductions?

Mr. BRADLEE. Without deductions of any sort, kind, or description.

Commissioner WEHLE. No deductions of interest?

Mr. BRADLEE. No deductions for expense, interest, maintenance, or anything; it is the dollars which are taken in by the company in the year.

Commissioner WEHLE. But there are so many elements that enter into the situation before we come to the net earnings then that it is rather difficult for the commission, is it not, to know exactly how to treat the situation of the street railway companies without taking the net earnings?

Mr. BRADLEE. I presume that the commission will have presented to it figures of net earnings of the industry.

Commissioner WEHLE. You see we have here in the record already, Mr. Bradlee, some indication of the expansion in the various items which are deducted from gross earnings.

Mr. BRADLEE. Yes.

Commissioner WEHLE. And which are, as we have seen here, cutting down the net earnings or even extinguishing the net earnings entirely.

Mr. BRADLEE. Yes.

Commissioner WEHLE. And along that same line it would seem that we might have some interesting testimony if you could carry your sheets just a little further.

Mr. BRADLEE. I would be very glad indeed to send you figures that will show exactly what the expenses, net earnings, and charges are on

both properties. We published a book which gives that information, and I will send copies of those to the commission.

Mr. WARREN. What is the latest year you cover in those reports?

Mr. BRADLEE. 1918.

Mr. WARREN. 1918?

Mr. BRADLEE. Yes.

Commissioner WEHLE. In these 35 companies that you are reporting on in this concentrated way in these statements which you have filed, are there any companies which have been allowed a higher rate than the normal 5-cent rate for transportation?

Mr. BRADLEE. In the city of Tacoma we have a 7-cent fare; in Beaumont, Tex., we have a 6-cent fare; in Galveston we did have a 6-cent fare, and they took it away from us and have gone back to 5 cents.

Commissioner MEEKER. Was that because you were making too much money?

Mr. BRADLEE. No; it was not. It was because the city administration changed and a new crowd was elected. I think those are the only ones—no, in Paducah, Ky., the fare has increased to 6 cents. Otherwise I think the fare is 5 cents.

Commissioner WEHLE. Have those fares been in force during the entire year 1918?

Mr. BRADLEE. No; they have not. They have been increased at various times during the year on the various companies.

Commissioner WEHLE. None of those increases were in effect in 1917?

Mr. BRADLEE. No; all of them occurred in 1918.

Commissioner WEHLE. Do any of the properties which you have listed here in your statement purchase their power rather than produce it?

Mr. BRADLEE. Yes.

Commissioner WEHLE. How many of the companies purchase their power?

Mr. BRADLEE. I think about three. In one case—there are two companies there, one an electric-light company and one a railway company, and the railway company purchases from the electric-light company, so both companies are included in that statement.

Commissioner WEHLE. What kind of contracts for the purchase of power are there in force in those three cities, if you can give us those?

Mr. BRADLEE. Well—

Commissioner WEHLE. First, as to the period over which the contract of supply runs.

Mr. BRADLEE. I am afraid I have not that sufficiently in mind to give you any exact figures on it.

Commissioner WEHLE. What are the three companies that purchase their power?

Mr. BRADLEE. There is power purchased by one of the Seattle companies or Puget Sound companies; power is purchased in Keokuk and power has been purchased in the Blue Hill Street Railroad, which, by the way, is no longer under our management.

Commissioner WEHLE. What is the last?

Mr. BRADLEE. The Blue Hill Street Railroad, and by the way, let me say a word about the Blue Hill Street Railroad—

Mr. WARREN. That is in Massachusetts?

Mr. BRADLEE. In Massachusetts.

Commissioner MEEKER. Near Boston?

Mr. BRADLEE. Near Boston. Mr. Tripp made a statement this morning that Westinghouse, Church, Kerr & Co. gave up the stock in a property in which they were interested. We gave up the stock in the Blue Hill Street Railroad Co. in consideration of having some one else assume the burden of going on and conducting the business. That stock was issued under Massachusetts laws, and under the Massachusetts laws it was necessarily fully paid at par and it represented an investment of 100 cents on the dollar. And rather than continue the operation of that property, we gave away the stock and we assumed in addition and continue to carry one-half the floating debt, so that we not only lost our stock but we are still liable for half the floating debt. Since that time the company has gone in the hands of receivers, and I think we have lost half the floating debt.

Commissioner WEHLE. In connection with purchasing power—would you be willing to give the commission some view as to what the future policy of street-railway business should be from an economic standpoint?

Mr. BRADLEE. My impression is that there are to-day in the country too many small power plants. I believe it would be economically better to have a fewer number of large power plants and obtain the economies which come from production on a large scale—economies in first cost of the plant and economies through more efficient operation with large-sized turbines. Just how far that should be applied to street railways is an open question. In a city as large as Boston, it is quite possible that the Boston Elevated can produce its power as cheaply as it could produce it if it combined with the local electric-light company, because each power station is of sufficient size to produce power economically. In the smaller towns, I think it might very frequently work out to be more economical to have one power station owned either by the street-railway or the electric-light company, as the case might be, to produce power for both; and, as a matter of fact, in many of our properties, being combined electric-light and street-railway properties, we have just that situation.

Commissioner WEHLE. Do you find that in the places where Stone & Webster Co. have in operation the combined power plant for furnishing both the light and the power for traction that you are generally producing it at a lower cost than in other places where you have your independent plant for the operation of the traction line?

Mr. BRADLEE. In general the cost goes down as the size of the plant and the output increase.

Commissioner WEHLE. Then you would say that the normal development which, as an engineering proposition and as an economic proposition, should be aimed at in the years to come, is a plan which would carry with it the elimination in the smaller city of the power plant devoted exclusively to traction purposes and would carry further the purchase or the derivation of power from the larger plant which serves the entire community?

Mr. BRADLEE. I think in many cases that would work out to the economic advantage of the community.

Commissioner WEHLE. Not only for traction purposes and lighting purposes but also for industrial power?

Mr. BRADLEE. I think that is equally true for industrial power. There are so many small plants which produce power very much more expensively and consume very much more coal than would be the case if they were supplied from a central station.

Commissioner WEHLE. In the present state of the —

Mr. BRADLEE. Of course, any change of that kind must be gradual. I mean you can not afford to throw away what you have to-day, necessarily. There may not be enough additional economy to warrant simply discarding existing plants, but the tendency as development goes on, I think, should be toward greater concentration.

Commissioner WEHLE. The Stone & Webster Corporation has made a success, has it not, of the activity of taking over properties which are in a far from flourishing financial condition, in building them up and putting them on their feet?

Mr. BRADLEE. We thought so up to about a year and six months ago. We have had a good many troubles in the last 18 months.

Commissioner WEHLE. In connection with doing that business Stone & Webster have taken over properties of all sizes, have they not?

Mr. BRADLEE. Yes; up to cities of 300,000 people.

Commissioner WEHLE. You spoke of Paducah, Ky., for instance.

Mr. BRADLEE. Yes.

Commissioner WEHLE. Which has a population of how many, do you remember?

Mr. BRADLEE. About 30,000 or 35,000, I think.

Commissioner WEHLE. And you have there raised your fare to how much?

Mr. BRADLEE. Six cents.

Commissioner WEHLE. Do you believe that that will suffice to solve your problem in Paducah?

Mr. BRADLEE. I am sorry to say the company is in the hands of a receiver.

Commissioner WEHLE. Now we had testimony in the record some time ago at another hearing, Mr. Bradlee, to the effect that in cities of approximately this size that we are now discussing—30,000 inhabitants—there is a type of property which presents a dilemma, from which there seems to be no escape, according to the testimony of this witness; if the rate is not raised it is impossible, so said this witness, for the company to come out with a profit. On the other hand, if it is raised, the people will refuse to ride to such an extent as to cut down the profit again. Would you say that Paducah presents that sort of a situation?

Mr. BRADLEE. No; I would not. I think that is true of certain properties. I think those are primarily properties that depend to a considerable extent on pleasure travel, or else they are properties built through sparsely settled communities rather than urban lines. I believe that the increase in fare in the urban systems, even in the small cities, will bring about a solution of the problem, and I believe that even though the first effect of that increase in fare is to

cut down earnings so that there is no immediate increase in gross, I believe the ultimate effect will be to work out the situation.

As a matter of fact, in such of the small cities as I have had experience, and as I have seen of other properties, the increase in receipts when the fare is changed from 5 to 6 cents is about one-half of the theoretical increase. In other words, from 5 to 6 cents is 20 per cent increase and you actually get about 10 per cent increase. It does not apply to all cases, but in general it runs about that way. Then gradually the falling off in riding returns, people get a little tired of walking or else the growth of the city brings new riders into the community, and after a time the riding is right where it was before with the full increase of 20 per cent.

Commissioner WEHLE. Have you made any study of the cost of affording the public service of transportation by gasoline instead of electricity?

Mr. BRADLEE. Yes.

Commissioner WEHLE. What sort of a study has been made by the Stone & Webster Corporation of that?

Mr. BRADLEE. We have studied the situation in this country, we have studied the situation abroad in Paris and London, and we are operating gasoline buses in connection with our properties in Puget Sound, in connection with our properties in Fort Worth, and I think in one or two of the other cities. We are using the gasoline buses primarily as feeders for the trolley lines, using them in territory where service is required but which is not yet built up to a point to be self-supporting, and where there may be doubt as to whether they will ever build up to a point to be self-supporting. It is a simple matter to put in a bus and handle the traffic, and if the district does not build up, to transfer the bus to some other location where service is needed, whereas if you once lay your tracks you have made a permanent investment which can be moved only at material loss.

In general, the cost of transportation in the buses is greater than with the service on rails and as far as we have been able to determine we see no reason to assume that bus transportation can take the place of the present type of trolley car except in special cases.

One of our men last week visited Mr. Ford's plant, and went over with them the plans which they have in mind for a gasoline car to be operated on the street-railroad tracks. Mr. Ford has expressed the idea that he can produce a gasoline car which is lighter weight than the present electric car and will consequently be more efficient. I am a little bit "from Missouri" on that, but we would be glad to get anything that would increase efficiency.

Commissioner WEHLE. But it is an interesting field for thought in connection with certain kinds of communities, is it not—for the future, that is?

Mr. BRADLEE. I should say certain locations and communities rather than certain kinds of communities.

Commissioner WEHLE. You were just now speaking of the smaller property to which the generalization made by a previous witness might possibly apply, namely, that it presents an economic dilemma.

Mr. BRADLEE. Yes.

Commissioner WEHLE. And the exception which you had in mind was a certain kind of sparsely settled community?

Mr. BRADLEE. Yes.

Commissioner WEHLE. Does it occur to you that perhaps the application of gasoline with or without tracks might conceivably solve such problems as that?

Mr. BRADLEE. Well, it might solve it from the standpoint of the community, but I would not want to be an investor in the company that put them in. I do not think economically it would be a success. In other words, if the street railway does not pay, I doubt if the bus would, although there may be exceptional cases where it would.

Commissioner WEHLE. What kind of a case does Mr. Ford make out in connection with the selling of the car? He must sell this bus if he is undertaking to manufacture it at a considerable cost—

Mr. BRADLEE. He has at the present time an idea rather than a developed car.

Commissioner WEHLE. Has he manufactured any cars?

Mr. BRADLEE. No; he simply has it on paper, and not very complete on paper, either.

Commissioner WEHLE. Your cars that you are operating in Fort Worth and Seattle are not on paper, though?

Mr. BRADLEE. No; they are in the city.

Commissioner WEHLE. Are they operating on tracks?

Mr. BRADLEE. No; they are operating on streets.

Commissioner WEHLE. How much higher does the cost of operation of those cars seem to run than the cost of similar transportation would be on the track?

Mr. BRADLEE. I do not think I ever figured it that way. I—

Commissioner WEHLE. If you had a new community in which no street-car property existed—

Mr. BRADLEE. I will say this. I do not think we are operating a bus that pays.

Mr. WARREN. You do not think you are operating a bus that pays, you say?

Mr. BRADLEE. No.

The CHAIRMAN. Is it convenient for you to be here to-morrow morning?

Mr. BRADLEE. Well, I have a ticket on the 7.30 train for Boston, and have some pretty important engagements there. If I could get through to-night I would like to, but if I can not, I will stay.

Mr. WARREN. Mr. Bradlee came at great inconvenience to himself, Mr. Chairman, and I should like, if possible, if we could release him to-night, because I know what his engagements in Boston are.

The CHAIRMAN. We will hear Mr. Bradlee through. Go on, Mr. Wehle.

Commissioner WEHLE. Supposing that you have a community of perhaps 20,000 to 30,000 inhabitants, somewhat scattered, and you were called in as an expert to solve the problem—the transportation problem—for that community and establish a transportation system for it—

Mr. BRADLEE. We have a general rule in our business and have had for many years, and that is never to interest ourselves in a street-railway problem in a city of less than 25,000.

Mr. WARREN. Is that the result of the Blue Hill Street Railroad?

Mr. BRADLEE. Well, that is the result of watching various companies.

Commissioner WEHLE. But I am asking you this question, Mr. Bradlee, as an individual whom I know to have had considerable experience, and I am asking you this from the public point of view and really asking you to address yourself to it, not from the investment point of view of a company which has a certain settled policy in developing property, but simply because one of the various phases of this whole problem that is being put up to us is even the phase of the small community.

Mr. BRADLEE. Naturally.

Commissioner WEHLE. And I am asking you not with reference to your business, of course, but simply from the public point of view.

Mr. BRADLEE. Well, I said that simply to indicate our point of view on those properties. I think when you have a small community of that sort it really comes down to a community problem. I doubt whether there is any system of transportation in a community of 15,000 or 20,000 people which would be self-supporting just as a commercial enterprise. It may be run in connection with the larger system, and the larger system may support that smaller district. In that way, they may be served without any help from the community. But if it is an isolated community I think it will need some form of public help. Relief from burdens will be one help; possibly some contribution toward the expenses, another form of help. You probably know that in Massachusetts a law has recently been passed under which cities and towns are permitted to contribute a small percentage of the assessed value of the city or town property toward the local transportation system; and a number of Massachusetts cities and towns are making such contributions. A property in which we are interested in Plymouth, Mass., is receiving a contribution of that kind at this time, and without it the company could not have got along.

Commissioner WEHLE. Where the Stone & Webster Corporation—to come back to the corporation now—has taken over property and reorganized it, what has it generally done with reference to the outstanding issues of stock?

Mr. BRADLEE. In some cases the outstanding issues of stock have been left unchanged. In other cases there has been a complete reorganization—a new company has been formed, the old companies have disappeared and the new company has issued securities against the properties taken over.

Commissioner WEHLE. On what basis, generally?

Mr. BRADLEE. I do not know that there is any general basis.

Commissioner WEHLE. Is there any approach to a general basis?

Mr. BRADLEE. No; I do not think there is. We have done all kinds of things. We have issued securities for less than the cost; we have issued securities exactly equal to the cost to us of the property; we have issued securities equal to the assumed value, or the best we could determine to be the value of the property; and we have issued securities in excess of the value of the property. I think we have done all the different combinations, first and last.

Commissioner WEHLE. Have you issued any bonus stock?

Mr. BRADLEE. Yes.

Commissioner WEHLE. How recently?

Mr. BRADLEE. Well, not for quite a number of years.

Commissioner WEHLE. How many years?

Mr. BRADLEE. I can not tell you; but it is several years back. We have not taken over any new companies for several years now. The question of issuing bonus stock, as I see it, has been this: Rightfully or wrongfully, the practice has developed of selling bonds in a new company and of selling preferred stock and giving the purchaser of the bonds and the preferred stock a certain amount of common as a bonus; the idea being that the bonds and the preferred stock would represent their investment, the common stock would represent, as Mr. Tripp said this morning, their hopes; and if the proposition worked out well, the common stock might be worth something; if it did not work out well, it would have no value.

Now that practice grew up—I do not know when it started or where, but it did grow up—and there was a time when it was practically impossible to finance a new corporation without following that practice. You were in competition with that method, and the investor liked it, and if you were going to get the investor's money and get him interested in the enterprise, you were more or less forced to fall in line to a greater or less extent with that method of handling the business.

I think the public-utility people recognized, perhaps not at the start, but many years ago, the fallacy of that method of financing. I think most of them would have done away with it many years ago if it had been in their power to do away with it and go on and develop the business. But it has taken time, and it is only gradually that the public have been perhaps educated up to a greater extent to handle the financing of such corporations in that way.

Commissioner WEHLE. The legitimate investment interests and the better class of production interests would be glad to see an abolition of the practice of issuing bonus stock?

Mr. BRADLEE. I would be delighted if it could be wiped out.

Commissioner WEHLE. Has it been abolished?

Mr. BRADLEE. No; it has been abolished recently, because there has been no financing of street railways.

Commissioner WEHLE. How recently do you know of bonus stock having been issued in connection with the sale of securities or the issuance of mortgage bonds of any public-utility company?

Mr. BRADLEE. Well, I have no case in mind in the last few years.

Mr. WARREN. Has it not been abolished in all States where the supervisory commissions have been established?

Commissioner BEALL. There is hardly any State, as I understand it, where it could be done to-day. You certainly could not do it in any state where there is a public-service commission.

Mr. WARREN. That is what I thought.

Commissioner BEALL. And all the older and more important States I think, without exception, have a commission, have they not, Mr. Elmquist?

The CHAIRMAN. Forty-seven States of the Union have commissions.

Commissioner BEALL. Of course, there are a few States, I believe, where the commission does not pass on the issues of securities, but in most States they do.

Mr. BRADLEE. Wherever there is a commission with that authority, of course that immediately stops it.

Commissioner WEHLE. Certainly, the commission knows there are a number of States where the public-service commission of the State has that authority.

Mr. BRADLEE. Yes.

Commissioner WEHLE. But there are some left where the public-service commission has not that authority, and my question which I asked merely had reference to those States.

Mr. BRADLEE. Yes. I think the practice is very distinctly disappearing, and I hope it has disappeared.

Commissioner WEHLE. Even the authority, though, as it exists, differs very much in different States, does it not?

Mr. BRADLEE. In the control of securities?

Commissioner WEHLE. Yes.

Mr. BRADLEE. Yes, it varies as to the extent of control.

Commissioner WEHLE. There are some States which undertake to exercise some regulation over the issuance of securities. The statute does not, in terms, forbid the issuance of bonus stock; is not that true?

Mr. BRADLEE. Yes; I think so.

Commissioner WEHLE. That is all, Mr. Chairman.

Mr. WARREN. Is it not true, Mr. Wehle, that the law does not recognize the issuance of bonus stock as such in any jurisdiction; it always has to be maneuvered? Theoretically, any State law that I have ever run across treats all stock as being required to be issued for value and the so-called bonus stock is usually the result of a construction contract, or something of that sort. I do not recollect any State which in terms would sanction the issuance of stock for nothing as a bonus to go with other security.

Commissioner WEHLE. No; my question did not imply that, I think, Mr. Warren. My question did imply, though, that there are some States where there is a regulation over the issuance of securities by public-service companies where the issuance of securities in the form of bonus stock is not positively prohibited.

Commissioner MEEKER. I would like to get your idea of the proper basis for getting at the value of properties upon which the company has a just claim to receive a return. Would you agree with the statement made by Gen. Tripp as to using stocks and bonds outstanding as the basis of a physical valuation?

Mr. BRADLEE. I think that Mr. Tripp's idea for determining the money that went into the property is good as far as it goes, but I do not think it covers the situation fully.

To take a specific instance: The Haverhill Gas Light Co. was organized many years ago—I think in the sixties. It is a company in Massachusetts which furnishes gas in the city of Haverhill. That company invested some sixty-odd thousand dollars of capital in its original plant. Then, year after year, they took everything they earned and they put it back into the property. They never paid any dividends and never increased the stock. They just gradually worked up the value of the property. Later we became interested in that property and we acquired the \$65,000—I think it was—of stock. But there had been invested in that property at that time something like \$600,000 of money. It could not be reproduced—

Commissioner MEEKER. In addition to the original \$65,000?

Mr. BRADLEE. Well, including the \$65,000. Ninety per cent of the money had gradually been put in there through dividend accruals and accruals on those dividends. We had a rate case before the Massachusetts Gas and Electric Light Commission, and in that rate case it was necessary for us to go back and show what happened in the building up of this property, because there was danger from our point of view that they would simply say, "You only have an investment here of \$65,000." We were able fortunately to get at the books of the company running away back, and we found that over that entire period, while the property had been built up, with the exception of the \$65,000, out of earnings, the company had never earned an excessive amount in any year on the property which existed at that time.

Commissioner MEEKER. As I understood Gen. Tripp, he would take account of just that situation. How did you acquire the property; was it by the issuance of bonds or——

Mr. BRADLEE. No, we bought the stock.

Commissioner MEEKER. The \$65,000 of stock?

Mr. BRADLEE. Yes, but we paid a good deal more than \$65,000 for it.

Commissioner MEEKER. Yes, naturally. But you would be able to show you had more than \$65,000 of an investment in the property of the plant?

Mr. BRADLEE. Yes.

Commissioner MEEKER. I think that he——

Mr. BRADLEE. I do not understand that Mr. Tripp would take the purchase price of the property. That is, if you owned a property and I bought it from you to-morrow, and a week later we appeared before a public-service commission to have our rates regulated, I do not assume that the commission would take the price I bought the property from you at a week previous to the hearing as an indication of its value.

Commissioner MEEKER. No, but his scheme did take account of the turning back of earnings into the property. But that is not the point I want to bring out. Do you think that the value of the property is most easily gotten at by the method of appraisal of physical valuation, or do you think it can be gotten at easier in some other way?

Mr. BRADLEE. I do not think the problem is quite as simple as Mr. Tripp stated. The Supreme Court, as I understand it, has pointed out that the money that goes into the property is one element in determining a fair value; that the cost of reproduction is another element in determining a fair value; that the price paid for the property by the then owners is another element in determining the fair value; and that it is necessary to weigh those all more or less and give them some consideration in arriving at a conclusion as to what is the fair value.

Now, I think it is perfectly true that there are cases in which a fair value can be arrived at by taking the money that has gone into the property. I think there are other cases in which that would lead to an unfair value unless a broader consideration was given to the other factors. Wherever it is possible to arrive at a fair solution of the question by taking the actual cash investment, I believe that that is a simpler thing to get at. I believe it is a thing which is much better

understood by the public. I think it makes it much easier to work out a satisfactory solution with the public and I am inclined to adopt that plan and favor it except with this reservation—that there are cases in which I believe that might lead to injustice sometimes toward the investor, sometimes an injustice perhaps to the community.

Commissioner MEEKER. Do you believe that it is essential that we get at a fair valuation of the street-railway properties?

Mr. BRADLEE. I do. I see no way of working out a service-at-cost franchise or any other equitable solution without arriving at some fair value.

Commissioner MEEKER. I do not wish to keep you any longer than possible—

Mr. BRADLEE. That is all right; I can stay. I am not going until 7.30. I am sorry to keep you.

Commissioner MEEKER. You have indicated you have not very much faith in the motor bus. I would like you to explain to me, if you can, this great falling off in gross earnings that occurred in 1915, which you say was due in part to the jitney bus.

Mr. BRADLEE. Yes.

Commissioner MEEKER. If the jitney bus or any other kind of bus is not really a competent competitor with the street railways, how could they have dug such holes in your gross earnings in that year?

Mr. BRADLEE. Well, it takes a little time to find out whether a thing is a financial success or not. The jitney started up, not with a bus, not in the class of service that a street railway would give; it started out with a lot of second-hand automobiles, a great many of them Ford cars and other low-priced cars. The people were crowded into those cars in a way that they never would stand for in the long run. There were no regulatory ordinances, there was nothing to determine what was reasonable service and what was not. But even under those conditions, the figures which we have show that the average time a man stayed in the jitney-bus business was about three months, and then he disappeared and went into something else. Unfortunately, others were not willing to profit by his advice, and they had to learn for themselves; and the numbers of buses remained the same over a very considerable period of time, but the men who operated them shifted.

Commissioner MEEKER. In other words, the jitneys were running at a loss all the while, although a good many of the jitney operators did not know enough to know that they were operating at a loss?

Mr. BRADLEE. It took them time to find out, and many of their expenses were not charged in at all.

Commissioner MEEKER. And just following that out, the jitney buses did not give any sufficient security to the passengers: In case of accident the passengers simply suffered loss?

Mr. BRADLEE. In the early days there was no security at all. Later, in many cities, ordinances were passed which required the jitney driver to take out a bond.

Commissioner MEEKER. And as soon as the jitney bus was put on a business basis it became a more expensive method of conducting transportation than the street-railway system?

Mr. BRADLEE. Yes.

Commissioner MEEKER. Do you think there may be possible improvements in the motor bus and gasoline engine that may bring it again into the field as a competitor?

Mr. BRADLEE. That is always a possibility.

Commissioner MEEKER. But nothing is in sight as far as you know?

Mr. BRADLEE. And that is one of the menaces to the street-railway business.

Commissioner MEEKER. In Great Britain they have given some attention to the creation of power at great central plants located at the mines. Has any such plan developed in this country to your knowledge?

Mr. BRADLEE. Not on any definite plan such as has been worked out in England. In England the Government took the matter up and appointed a special commission to investigate, and that commission has studied the situation throughout England and has made very definite recommendations for centers at which large power plants shall be developed. As I understand it, that is now in report form; that is, no definite progress has been made in carrying out the plan. The report was submitted about a year and a half ago, I think—about, but during the war; so naturally it was held up. Just what will take place now I do not know.

Commissioner MEEKER. Do you think that there is a possibility—

Mr. BRADLEE. And in this country there has been a tendency to work toward that same general plan. There is a tendency to concentrate, there is a tendency of the larger power distributing systems to interconnect their lines and relay each other, and I think that is a tendency in the right direction.

Commissioner MEEKER. That may then eventually help in the solution of the troubles of the street railway companies, the furnishing of cheaper power?

Mr. BRADLEE. Yes; but the saving in power will not go very far in the street-railway situation. Power, after all, is not a very large percentage of your total expense.

Commissioner MEEKER. The principal expense is labor—

Mr. BRADLEE. Yes; so that even though you made a 25 per cent saving in power it would be a pretty small per cent of the total railway expense.

Commissioner MEEKER. Now we had data furnished to us yesterday giving some information about labor costs. Could you give us some further information about the actual increase in the wage scale in the different items that you spoke of a few moments ago?

Mr. BRADLEE. I think you will find that all here in detailed figures which I am going to send you. For example, I simply gave you the figures under conducting transportation. Now one of the items that goes to make up that figure is the expense of trainmen. The trainmen's expense increased 80 per cent in the Houston company from 1913 to 1919. And you will find all through—

Commissioner MEEKER. As long as that is to be a matter of record, that is all I want to know.

Mr. BRADLEE. Yes.

Commissioner MEEKER. Another thing I would like to ask, is it possible for you to give us a monthly statement showing the effects on your gross earnings and net earnings, too, if possible, of the increase in fares in those cities where you have secured an increase in fares? Otherwise, we will not know where you stand, whether

your gross earnings have actually been increased or remained stationary, or to what extent they have been increased by the increase in fares.

Mr. BRADLEE. Yes; I think we might get some such figures up.

Commissioner MEEKER. If it is possible, I think it would be very important to show such figures.

Mr. BRADLEE. I will see what we can do along that line.

Commissioner SWEET. Do you think, Mr. Bradlee, that the crucial point in this whole matter is getting the companies on a basis where they can appeal to new capital and get new capital invested, and without that kind of relief their case is pretty hopeless?

Mr. BRADLEE. I think that is crucial in this way: That it is essential if the public is to be adequately served. Now, if that situation is met and the situation is worked out so that the new capital is attracted, then I think we can assume that the old capital is in that same plan reasonably taken care of so that the measure of what is necessary to be done is what is necessary to attract new capital.

Commissioner SWEET. You agree substantially with Gen. Tripp, that to be upon a healthy basis it must be possible for companies engaged in the business to attract new capital so as to keep up with the needed extensions and growth of the industry; do you?

Mr. BRADLEE. I do. I do not think they can adequately serve the public without that. It is an essential.

Commissioner SWEET. Now, can you suggest any way by which the public can be brought to a realization of that fact? You do not think the public does realize it now, do you?

Mr. BRADLEE. No; I do not.

Commissioner SWEET. Can you suggest any way in which that can be brought to the public so as to make the public realize that it is not merely a question of invested capital and making that fairly profitable, but a question of continually increasing capital? How can the public be made to understand that?

Mr. BRADLEE. I hope that your committee will state that so clearly in your report that it will be understood by the public and will come not only to their attention but so forcibly that it will in the future understand it.

Commissioner SWEET. You are passing the buck, as they say.

Mr. BRADLEE. Well, you are our hope right now.

Commissioner SWEET. We want you to tell us how to do it, if you can.

Mr. BRADLEE. Well, I have tried to present there, just from specific cases, what has happened in a group of companies where there has been need of capital or the capital has been furnished, that their need is not a sporadic and occasional need but it is a continuous one month by month and year by year. Similar figures could be produced and very likely have been produced and will be presented to you for the industry as a whole, showing the amount of money which has gone into it year by year in order to meet the public need. I think those figures might be put in such a form that a convincing statement to the public could be made, and I am sure that anything that your commission would say along that line would be very helpful.

Commissioner SWEET. That is all, thank you.

Commissioner BEALL. Mr. Bradlee, you were speaking about nothing having been done in this country as to big power plants at the mines. That is not really quite correct, is it? Are you familiar with the Windsor plant on the Ohio River?

Mr. BRADLEE. If I said that, I did not mean that.

Commissioner BEALL. I want the commission to know there are a good many plans and some are actually being built, for big power houses that will distribute not only in one State but in a number of states. There is this big plant at Windsor on the Ohio River which furnishes power to at least two or three States. The Duquesne Co. of Pittsburgh is now erecting at a cost of many millions of dollars a plant at a place near Cheswick, right at the mine. They are making actual progress on that. And there is a big power company in California, and, if I recall it, through the war, at the request of the Government they were all hitched up together, California, Colorado, Utah, and I think they went up into one of the Northern States as well.

Mr. BRADLEE. What I thought I said and what I intended to say was that there had been no general plan worked out by the Government—

Commissioner BEALL. No; not by the Government, but they have been requesting it—

Mr. BRADLEE. As they have in London, and no general plan referring to the country as a whole, as has been done in England. There are many cases; we have such cases ourselves. The Mississippi River Power Co. is an instance. The Puget Sound Traction, Light & Power Co. is another instance of such a case. There we have four water powers and two steam plants interconnected feeding the cities of Tacoma, Seattle, Everett, and Bellingham, and all the intermediate territory. We are connected up with another power company which is located in Canada, which supplies power across the line. We have a similar system in Georgia—in Columbus—and that system is connected up with another large power-supply system there; and that general tendency is marked throughout the country.

Commissioner Beall. That is true also in Utah, is it not?

Mr. BRADLEE. Yes.

Commissioner BEALL. That company with all its plants in Utah and Montana and Nevada, connected with street railways and electric light and power companies?

Mr. BRADLEE. And the New England Power Co. in New England is another instance. There are many instances of that kind. I did not mean to say for a moment that such was not the case.

Commissioner BEALL. I wanted to ask one question on those jitneys. Was not one cause for the success, to use such a term as that, in Seattle, Los Angeles, and other western cities, the fact that in the first year or two of their operation they only operated in the rush hours when the traffic was the heaviest and only operated on good streets where the congestion was thickest?

Mr. BRADLEE. Yes.

Commissioner BEALL. That is, they did not give service at all hours of the day or night like a street-railway company does.

Mr. BRADLEE. No; they simply went in and took the cream of the business. They not only operated on the most crowded streets, but

they only operated short distances. They picked out the short hauls. They also——

Commissioner BEALL. In other words, they took the business which was profitable?

Mr. BRADLEE. They took the cream of the business and left the skim milk.

The CHAIRMAN. Before adjournment, the commission has the following announcement to make: At the conclusion of the testimony which is to be presented by the American Electric Railway Association and related utilities, the commission will adjourn until August 4 at this point, when it will receive testimony from Secretary of War Baker and a group of economists and others who will be invited to attend. After that the commission will take another adjournment until August 11, at which time mayors from New York, Boston, Buffalo, Chicago, New Orleans, Minneapolis, St. Louis, Seattle, San Francisco, and probably some other cities will be invited to attend and testify. At the same time we will invite regulating commissions to come here and present their testimony.

We now will stand adjourned until 10 o'clock to-morrow morning.

Mr. WARREN. May I ask one question before we adjourn?

On that matter of valuation, Mr. Bradlee, in cases where the securities of the company have been issued under supervision by a supervisory board and with its approval, the easiest method would be, would it not, to take the capitalization of the company as the basis rather than either a valuation or an attempt to determine the amount of money that has gone in?

Mr. BRADLEE. I think that would be easy and that would apply to the State of Massachusetts as a very good example——

Mr. WARREN. Yes; exactly.

Mr. BRADLEE. There for 25 or 30 years the securities have all been issued under the direction and control of the commission and the securities represent the actual cash which has gone into the property.

Let me say just a word on that. It seems to me if you are going to take the cash that has gone into the property as the measure of value, the cash to be considered and the value to be considered is the entire cash value of everything that has gone in to create that property from the investor or any services, and which has not been paid back. If the investor has had some of his investment paid back to him that, of course, cancels that part of the proposition. But in so far as the investor has put in money in good faith and properly, that should be recognized, whether that money has gone into a building which is there to-day or a building which was there some time ago and has disappeared. If the investor has not got his money back, he is still entitled to a return on his money until such time as he is reimbursed for the capital which he has furnished. So to my mind, the essence of the thing is what money has gone in there and not been paid back, and everything that enters into that class should be a proper element in the cost of the property.

The CHAIRMAN. We now stand adjourned until 10 o'clock to-morrow morning.

(Whereupon, at 5.30 p. m., an adjournment was taken to Thursday, July 17, at 10 a. m.)

WASHINGTON, D. C., *July 17, 1919.*

Met pursuant to adjournment at 10 a. m.

Present: Parties as before.

The CHAIRMAN. Are you ready to proceed, Mr. Warren?

Mr. WARREN. I am going to ask Mr. Clark, whose testimony was interrupted day before yesterday, to resume the stand and complete his historical sketch, if I may, now. Will you take the stand, Mr. Clark?

STATEMENT OF MR. WILLIAM J. CLARK—Continued.

Mr. WARREN. Mr. Clark, the other day about the time that you finished your testimony, you were speaking of obsolescence, referring to some company, I think.

Mr. CLARK. Depreciation through obsolescence. Possibly I may have given the commission a wrong impression as regards when that terminated. I was referring to the Connecticut situation, as you may remember, and I was speaking of the excessive depreciation from that cause up to, I think, 1897 and 1898.

Of course, as a general feature, this has continued throughout the country. I did not know but I might have given the commission the wrong impression in that regard. The ratio has decreased, of course, with the advancement in the state of the art. That was all on that feature.

But, gentlemen, if I may make another statement, I am exceedingly anxious to assist the commission in every possible way and, at the same time, even more anxious not to unnecessarily absorb your time. I would, therefore, explain that while I consider myself quite well acquainted with street-railway and local-transportation conditions the world over up to about two years ago, since then I have devoted practically all of my waking hours for seven days a week to the preparation of some exhaustive data on foreign commercial, industrial, and business conditions for the Government, more especially to aid in the expansion of American foreign trade. Consequently, I can not say that I am up to date fully on all of these later developments, although I have a general idea.

It has struck me, therefore, that perhaps my greatest value to the commission—if they so desire—would be in connection with the historical side; and in that regard I would say that before leaving New York I hastily caught from my files certain material which I have here, which is not in condition to be presented as exhibits to the commission, but which I should be very glad to turn over to them if they desire it as a basis for verifying certain facts. I would go further and state that—

The CHAIRMAN. In what shape is that Mr. Clark?

Mr. CLARK. It is copies of newspaper articles, over different periods. I might say, continuing this, that I find even with our friends of the street-railway association a mystery, or a seeming mystery, concerning the census of street railways for 1890. I have never found but very few people who knew where that existed. Well, here it is, gentlemen; and the mystery is this: The data is found in the volume on steam railroads and, so far as I know, has never been catalogued so that people could discover where it was.

Now, in my opinion, much of the data contained there is of extreme importance to you on this question of capitalization, because it is very thorough and complete; and many of the comparisons there, although the census of 1890, are with the figures of 1880, so it carries you back to that point. I wish that Mr. Welsh might have had this material so he could perhaps have started some of his charts earlier.

Now, as to the other sources of information which are not generally known: Obviously examination of the trade and technical journals reveals much, and that is the character of material I have here—extracts which we made in the days gone by.

There is another feature incident to that which is not generally appreciated. If you desire to fix dates, if you desire certain other facts incident to these different periods, examination of the advertisements of electrical manufacturing companies the world over—this is as true of European publications as it is of American—reveals a great deal of interest.

Now, even more important as regards finding these facts, while at the outset without explanation it may seem to be entirely technical, are the patent records in many important pieces of litigation. I might say that the records in one particular case would fill a shelf 7 or 8 feet long. Now those records are made up principally, of course, with the reports of testimony of individuals, of fac simile reproductions of articles which have appeared, some of them, away back in the thirties and forties—the reproduction of drawings and everything of that sort. And this material is beautifully cross-indexed. Now I suppose that it is existing here in the library of the Patent Office—I am not sure—but if not, those are available at a library that we control in New York City.

Now, I should be very glad, if the committee desires—to avoid using up your time here—so far as the time will permit, to compile a statement—I do not mean an expression of opinion—as to what the past publications reveal in connection with the history of the development of electric railways, not only in this country but, if it is desired, to a great extent abroad, because the same—

The CHAIRMAN. The commission would be pleased to have that statement, Mr. Clark.

Mr. CLARK. And it can be made as extensive, as I say, as time will permit. It can be made very, very short—I say that, but not very short—or it can be made quite extensive, if you wish it to tell the history.

Now turning to historical matters of a general character briefly for a moment: As you doubtless know the street railway as a possible carrier originated in this country, although for transportation of minerals and so on, in England, it probably goes back to the seventeenth century. The first moves of its introduction abroad were by a gentleman once famous in this country, Mr. George Francis Train, who had some very unusual experiences in trying to do it.

Now briefly, to outline the results of this and perhaps carrying that further, I will put it this way: The street-railway mileage of the United States to-day is greater than that of all the other countries of the world combined. We have not accomplished everything here. I will probably surprise you when I tell you this, that the idea of what we now call the interurban railway developed in Argentina

with animal traction, and that long before there had been any practical electric railways there was a straight-away horse-car line which ran for 120 miles and which operated sleeping cars which were made in Philadelphia. Now I do not wish to lead you far on this thing—

Commissioner SWEET. What was the date of that, Mr. Clark?

Mr. CLARK. I can not give you the exact date.

Commissioner GADSDEN. Where did it run from?

Mr. CLARK. From Buenos Aires out to a town—I have forgotten the name of it—in the direction of Rosario, 120 miles. I do not know but our friends of the Brill Co. who are here to-day, who built those sleeping cars, can give you more exact data.

But turning back historically and bringing in further information concerning the condition, as I see the question of electric street-railway development and the problems involved in its operation, up to a comparatively recent period—two or three years, or three or four years—the great question was the one of investment or, perhaps more properly, capitalization involved. Now, of course, as you are well aware from what has been said here, it is a different thing; the character of the problem has changed somewhat. Decrease in the value of the purchasing power of the dollar, so that the costs of all that goes toward construction and operation are the great questions. You have all doubtless heard much on this subject as regards the lower capitalization or lower costs of construction, because, of course, with the municipalities the account stands as construction account and not as capital account, in the United Kingdom as compared with the United States, and true of some other countries. So, if agreeable, I will say a word or two on that.

Now, remember that, like the street railway, in a practical manner the electric railway was developed here in America. Now, all this excessive depreciation through obsolescence that I have already referred to—that is, the worst features of it, the earlier ones, when the seemingly excessive costs were involved—had been gone through to a great extent before Europe had made much of any start. In other words, it was able to profit by our experience here. In the United Kingdom especially, street railways as a whole had gone through a unique experience which culminated about the time—well, it culminated about 1893 or 1894 when we here had been acquiring this costly experience that I have referred to.

As you are perhaps aware, the English theory of vested rights in property the courts have carried a great deal further than has ever been done here. Now the gas companies, the water-supply companies which the municipalities had taken over, had gone to the extreme in paying for enormous costs, some of which I could give you if I had my data here. Carrying this further in the practical operation of street railways—I myself have had charge of construction there where this has been done, where street widenings were necessary in the construction of a street railway and it was necessary to expropriate or condemn property—if you touched a licensed saloon for which the proprietor had a long lease, you would usually be forced to pay more to the holder of that license than the entire value of the property. That is a specimen of the way they do with that problem.

Now, everybody supposed that the tramway act of 1870 or 1871 carried with it the usual British practice, as I remarked before,

going to the extreme on paying for vested rights. But about the first of the street-railway franchises granted under that expired at Glasgow and, to be very frank, the street-railway company there had not treated the public or the municipality fairly well. The holding of the court or the courts, for that matter, was to the effect that the municipalities were not obliged, as in the case of the gas companies, if they acquired the street-railway property, to take it over as a going concern, or, in fact, to take it over at all. If they desired to do it, it was what was known as scrap value. And so this term which is commonly used, of the scrap-iron tramway clause, resulted in this—that for all the mileage of street railways which were taken over by the municipalities—I have forgotten the exact figures; I could give it you; it was a mere trifle—I think, in the entire Kingdom, something like two and a half millions of dollars was all that the municipalities paid for the tramways that they took over. However, I would like to correct that figure later on.

Now, for comparison's sake, let me say that the tramways of the United Kingdom in extent are not comparable to those of this country; in fact in extent they are about the equivalent to those of New York State alone. But as these were municipalized, as I said, they were practically able to wipe out the previous capital account.

Now, with all due respect to our friends there, when it came to reconstructing these lines and getting them in shape for electrical operation, it was found necessary to do a great deal of street widening and straightening; and the municipal authorities were up against what I stated a moment ago, in that regard, going to the extremity as to fixing the value of the property taken over. In the great majority of cases that was done out of the general funds of the municipality. If I recollect right, about \$25,000,000 were expended in that way at London, which the London County Council municipal tramways had the advantage of. Liverpool, I think, was about \$15,000,000 in the same way. That, of course, all tended to hold down the capital investment. And so it can be said without fear of contradiction, and I think if the gentleman who is listed to testify here, and who can give you far more information and more exact information than I, Sir Albert Stanley—I think he will give you some very interesting facts on that.

Now, continuing on with the progress of the street railways in certain cities, and in fact there has been a great outcry since the war on the part of municipal authorities where this was done; like here, they were forced to pay for paving between the tracks, and I think there, 2 feet outside of the outer rails, but in many other cases this was not done. Paving was cared for out of the general funds of the municipalities, and so it has gone—with the net result that those tramways—their construction accounts—are relatively very much lower than here. But as I have sometimes put it, while the investors in American street-railway securities have paid liberally and excessively for what went before them, thank God, none of us has stolen anything from the men who made their investments, as has been done under legal form there in England.

Now, as regards another most important feature which has been partially touched upon in the testimony of others: The fundamental error, as I see it, in the establishment of our system of street railways here in this country was the fixed 5-cent fare or the fixed fare,

I should say, because it was not in all cases 5 cents. Whereas, in the United Kingdom and elsewhere throughout the world, as you well know, they have the zone system or something which is the equivalent of it.

Now, while the investors in street railways here at present, as you all know, are suffering from the result of that system, unquestionably the result has been to confer far greater benefits upon the American public than has the other system; that is by distributing your urban population far more thoroughly than has been the case over there. Had our street railways as they existed, we will say, in 1880, simply electrified as the time came along their existing lines and constructed only those which it would have been profitable to operate, their stockholders would have been very much better off. But practically, on the other side—I could go into it in detail if I had my data and show it to you—much as you have heard about this wondrous development over there, they have in the main simply constructed lines where they would pay at the outset.

Now, in perhaps the best managed system of all—in Glasgow—I have been intimate with that from the first. I went over in 1897, after they had sent their commission here to this country, when they were just making their preparations. I went over the line which they were supposed to electrify first, and I followed it up after I located there in 1899 and was very intimate with the management.

Now, what is the result? That Glasgow, with its low initial investment, its low rates of fare, seemingly, has made on paper a very good showing; but you have one of the most congested cities in the world there to-day. And that holds true of these other cities. The zone system of fares has not distributed the population as has been done here, with all the benefits which I believe go with it. I firmly believe that the decrease in the average death rate of American cities is as much attributable to this expansion of their population which has occurred within the last 30 years as to improved sanitation, water supply, and all the other things which have assisted in doing it.

Commissioner SWEET. They have the zone system in Glasgow?

Mr. CLARK. Oh, yes; they do.

The CHAIRMAN. Do you believe that the zone-fare system in Glasgow has contributed to the congestion that you speak of?

Mr. CLARK. The congestion existed before, but as they have not extended their system out, you understand, where it would not pay, they have not improved the condition.

Commissioner SWEET. They have not encouraged suburban residence?

Mr. CLARK. Not at all. That is true all over Europe.

Mr. WARREN. Do you happen to know what the mileage of the Glasgow system is now?

Mr. CLARK. I can not tell you. I have the reports at home, but I will file with the commission, as part of my exhibit, the parliamentary publications which give that on all of the British cities.

Mr. WARREN. I remember at one time that with a considerably larger population than Boston the mileage was much less.

Mr. CLARK. Oh, yes; only a fraction.

Commissioner GADSDEN. Before you leave that question of Glasgow and the congestion—what you say would seem to indicate that the expansion of American cities and the improvement in sanitation and

community life has apparently been at the expense of the railways and not of the public.

Mr. CLARK. That is exactly what I believe to be the case.

Commissioner GADSDEN. You think the railways have paid for the improved condition and not the public themselves?

Mr. CLARK. They have. And as I partially remarked the other day—I suppose you will laugh at this, gentlemen—that while of course it is the desire for gain that has actuated the financing of our railways, and so forth, there has been something about electricity—there is a germ which catches the average individual and makes him progressive, and that goes further in serving the public than would be done in any other way, as I see it.

Commissioner GADSDEN. Now, what have you got to say, Mr. Clark, about the wisdom of changing over now from a fixed system of fares to the zone system, so far as it affects the companies and their fares or effects the communities?

Mr. CLARK. Now, gentlemen, you are getting into intricate problems. If you will pardon me, Mr. Gadsden, for going back a little ways, I wish to start no controversy here on the relative merits of private and public ownership, but I believe, gentlemen, that municipal ownership per se is practically a dead issue, for this reason: Your public utilities almost without exception have outgrown municipal boundaries. You see it everywhere. Now, I think if you will examine the census reports—my figures will not be exact—some 15 or 20 per cent of the entire population of the United States is resident within 10 miles of the boundaries of some 40 of the more important cities; that is, not within the municipal boundaries, but within 10 miles limit of them. Now, your electric-lighting systems and your street-railway systems have spread there. In trying to solve your problems, this is what has embarrassed me. I have an abiding faith in the American public; and to be very frank, gentlemen, I believe that if the street-railway interests had devoted more of their energies to educating the public as a whole than they have to educating the representatives of the public we would all have been very much better off.

Now, I agree with what has been testified to here already—that this remedy which you are seeking must rest on public opinion; it could not stand without it. Now this is what puzzles me. Take almost any of these cities: How are you going to get your expression of public opinion where it may be scattered through—well, we take the Public Service Corporation of New Jersey, where it takes in half of the State of New Jersey in these various municipalities. And yet, I feel that what we do want in settling it is to let the public have a say.

Now, as I said before, I am not up to date on all these things, for good reasons; but I think there has not been a case in the United States yet where the public utilities have gone direct to the people with a well-demonstrated proposition, you understand, shown to possess merit and to be in the public interest, but what the public have supported it. I think that that is the case. But dealing with the street-railway situation, as I say, to get this expression of public opinion—how you are going to do it is what bothers me. Take this public-service corporation, for the sake of illustration—the expres-

sion of a referendum to the people of Newark or Newark and Jersey City and the Oranges would not tell the whole story. And everywhere you go it is the same thing. And yet I am particularly anxious to see if some scheme can not be worked out so that the public itself can have a chance to express its opinion on these matters.

Commissioner SWEET. Do you not think there are other ways of expressing public opinion rather than by votes or referendums?

Mr. CLARK. Well, I think there is within—

Commissioner SWEET. If there is a settled public sentiment in favor of a proposition such as municipal ownership or any matter of that kind, is not that reflected generally in the representatives of the public, in common councils, and in legislatures?

Mr. CLARK. Yes, to a great extent. Not always, I think.

Commissioner SWEET. Is it not true that most of the members of these representative bodies have their ear to the ground?

Mr. CLARK. I think it is, entirely so.

Commissioner SWEET. And they want reelection, generally?

Mr. CLARK. Yes.

Commissioner SWEET. And therefore they reflect public sentiment in their votes and their action?

Mr. CLARK. They do.

Commissioner SWEET. Or they try to, at least?

Mr. CLARK. They try to.

Commissioner SWEET. Sometimes they make a mistake with regard to public sentiment.

Mr. CLARK. Yes; but I think the difficulty there is the fact, so frequently, that before these gentlemen become representatives of the people—in other words the more they are elected, they will inaugurate a campaign of false education, that they arouse a public sentiment which is not a proper one and not in accordance with the facts or conditions. I think you can see it reflected in your public press. I have within a very few days. You see it reflected in fiction. Here is the traction magnate who has worked all these evils, and so on.

Commissioner SWEET. Well, that had a certain basis of truth, did it not, in the old days?

Mr. CLARK. In certain instances it did, I am sorry to say.

Commissioner SWEET. Yes.

Mr. CLARK. And I want to say right there, gentlemen, however—if you will pardon me—do not conceive the idea that all the watering of stock and all the ingenious forms of financial manipulation exist on this side of the water, because the gentlemen on the other side to my mind can teach the most expert Americans of that sort much more than they ever knew. It is a delicate matter to speak on, gentlemen, but I want to say this: In my thirty-odd years of experience with this, on many occasions I have cursed the American public official, I have said he was corrupt, you understand, frequently—that he was not representing his constituents. But, gentlemen, I want to say this, after my extensive experience abroad, and I am glad to say, that talk all you wish about the great integrity of public officials in other countries, ours are just as near perfection as they are. Our great difference is this—we wash our dirty linen in public, and they do not.

Commissioner SWEET. Well, it is a pretty good thing to wash it, don't you think?

Mr. CLARK. Oh, it is in the public interest, I think so; and yet there is a tact—

Commissioner SWEET. The process may be unpleasant, but it brings better results in the long run.

Mr. CLARK. It does, unquestionably.

Mr. WARREN. You spoke of the foreign street-railway development having had the advantage of the experimentation in this country, and that of course is true.

Mr. CLARK. Oh, yes.

Mr. WARREN. But as against that is it not true that our public got the benefits of this improved method of transportation long before the public abroad got it?

Mr. CLARK. Oh, very much, very much. And that can be quite easily shown, I think.

Mr. WARREN. And the cost of experimentation was one of the prices that they might reasonably expect to pay?

Mr. CLARK. Yes.

Mr. WARREN. And that they were anxious to pay at the time, were they not?

Mr. CLARK. Why, yes.

Commissioner SWEET. Can you tell us what the electric-railway situation in Great Britain is now?

Mr. CLARK. Not very accurately. I would much prefer that you ask Sir Albert Stanley when he appears. You know who he is, I presume. He was English born, but received his street-railway training in Cleveland, then at Detroit, then with the Public Service Corporation of New Jersey, and then went over as the manager of the London Underground Railways; and during the war he has been the chairman—he was not only knighted, but made chairman of the British Board of Trade, which, as you are perhaps aware, is a good deal more in form than any commission we have in this country. If you can conceive of the Interstate Commerce Commission, plus similar authority over everything in the way of navigation and industries of every name and nature, you have the British Board of Trade. And Sir Albert, I am sure, with his experience in this country and there, will give you a very accurate picture.

I would like to say this, gentlemen, however—I am jumping all over the lot, as usual—once more referring to municipal ownership; there is a mistaken impression as to how extensive it is. Now while it is very extensive in the United Kingdom, there is virtually none in France, so far as street railways are concerned, very little as regards the central stations, and only about one-third of the mileage in Germany. Certain of the British colonies, as of course you know, have it quite extensively, notably Australia.

Commissioner SWEET. You spoke of municipal ownership as being somewhat inconsistent with the general practice in this country of extending the railway systems out into the suburbs or beyond the limits of the city.

Mr. CLARK. Yes.

Commissioner SWEET. Is there any legal objection to a municipality's owning its street railroads and operating them beyond the city limits?

Mr. CLARK. No legal one that I see. I think I can see—

Commissioner SWEET. Would it not be a very natural and proper

thing for a city to do that even without profit, or perhaps with a small degree of loss, because of the resultant benefits to the city?

Mr. CLARK. Well, it might, and yet I should rather hold to the contrary theory—that the municipal authorities would say, “If you fellows want the full advantage of good public-utility service and all that goes with it, come inside.” Just the same as New York reaches out and tries to catch in various ways the man who does business there, you understand, and who may live in New Jersey or Long Island or Connecticut. And apropos of that—it may not fit this situation, and yet it reminds me of something I ought to tell you—the most jealous people in the world that I have known, or creations, I should say, are British municipalities. And I have never expected to live to see what has occurred in connection with those bulk power-station matters which were referred to, I think, on yesterday’s hearing. Now to illustrate: You can not tell where Manchester and Salford begin and end, any more than you can tell where Hoboken and Jersey City begin and end, yet through jealousy, they laid their tramways on different gauges so they could not exchange traffic. There is another point there in the north—I have forgotten the names of the towns—where they would not build within half a mile of each other. And you find that all over the Kingdom.

Now that is not only reflected in tramway practice, but otherwise. I trust I will not be considered egotistical when I tell you my experience with those things, which was a little different, you understand, than a business experience.

During the Spanish War, I became quite intimate with one who was then Capt. and afterwards Admiral Paget, the royal attaché, and I located in London about the time that he returned. Through him I became intimate with his brother, afterwards Gen. Paget, about whom there was quite a stir in Ireland, as you will perhaps remember, just before the present war. That brought me in connection with certain people connected with the British war office; and my advice was asked on this subject, and I gave it considerable study, as to how far we could go in coupling up the tramway systems of England or of Great Britain to be used as an auxiliary means of military transport if necessary. It was found utterly impossible. This parliamentary publication, which I will give you, tells the whole story, which you will see.

This same thing—if I may digress for a moment from street railways—occurred in connection with the connection of power plants and the character of their electric voltage. It is the worst mixed-up affair imaginable—all kinds and sorts of conditions, instead of as it is being done here in this country. And I might say it is true, and I think all the engineers here will agree with me, that the larger you make a physical electrical system—that is, I mean, make it physically—whether the source of generation be water power or whether it be steam, the better in the public interest, the more economical will be your result. Now, you are probably aware how extensively that thing has gone on in this country, notably in the South. You take it in the West, where these extensive hyrdoelectric systems, and sometimes the steam systems, have interconnected themselves physically.

Now, illustrating this point we are on—although it is not apropos to street railways, it may be of interest to you—in the very early days

of our getting into the war, a request came to me from the X-ray experts selected by the Surgeon General for information upon the central-station voltages of France. Without going into detail, it was necessary to secure very careful electrical regulation to operate X-ray apparatus. They said they could not get the information. I laughed, and I went to my library and handed them a French publication of 1914 which gave it on every central station in France. But this had to be worked up for them to get it in proper shape. To our surprise, we discovered that with direct current alone there were 36 different voltages ranging from 60 to 560. Of course municipal ownership was not responsible for this, but it led to something else I am telling you about. With alternating current it was just as bad. Now England was not interested in this particular thing, of course, but for curiosity's sake we thought we would see what they had there. Relatively there were wider differences in England than in France in that respect. Now as showing what the Germans had done, there was one case alone that I know of where, by connecting physically over 20 different generating stations, they were able to mass something over 100,000 kilowatts for the fixation of nitrogen. That had been carefully planned in advance.

Now, the effect of all of this is shown, as you know, in England by their proposed legislation on bulk power stations. This theory that you could draw a line around a municipality and do what you pleased inside without regard to your next-door neighbor or the fellow outside has been completely exploded. But the details, as I say, Sir Albert can tell you better than I can. But the tendency of the world to-day is in this general direction—realization of the fact that your electric public utilities are broader than the confines of any municipality, and they are bound to be so if we are going on with this development as I believe we are.

Mr. WARREN. And to get the best advantages from them?

Mr. CLARK. Yes, in the public interest.

Mr. WARREN. Mr. Clark, you spoke, when you were testifying day before yesterday, of the cost of electric-car equipment in the early days of the use of electric motive power compared with the cost just before the war. I think you touched on the power-station costs. Can you give the commission anything more definite as regards the cost of power stations back in the early nineties and at the present time and as to the efficiency?

Mr. CLARK. Perhaps so, Mr. Warren. But I think perhaps it would be better to leave it this way—to give them not as part of this historical thing, because I do not want to give you anything or express my own opinion, but I would be glad to have a statement prepared for them to give this in detail. But the progress of the electric-power station, as one of the commissioners spoke the other day—I think it was you, sir [addressing Commissioner Beall]—has been even more revolutionary than that of the street-car in everything that applies to it. Because, as I remarked only a moment ago, as you have gone on and on and on, you found it necessary to expand your systems, and while the incentive may have been proper to the investor, it nevertheless has been in the public interest.

Now, as I remarked before, I do not wish unnecessarily to consume the time of the commission, but if they would like a startling illustration of this I will be glad to give it to them. And I might say

as the General Electric Co. did not furnish the apparatus, I am not personally concerned. This is dealing with water power for the moment, particularly low head power.

Now, I consider that what the Duke interests, so called, have done in the Piedmont district in the Carolinas in the development of power facilities is one of the most beneficial things that has ever been attempted anywhere in the public interest. Now, to have you grasp what this means, I will have to go back. The most comprehensive statement that has ever been made concerning our water powers is the two volumes in the census of 1880; and that work was compiled under the direction of Prof. G. F. Swayne, of Harvard, of whom you doubtless know; and I have understood he considers it the best work of his life. His estimate as regards potential water power in the United States agreed quite closely with those which have since been made by the United States Geological Survey, but of course there is quite a difference between your potential or theoretical water power and the available water power.

In his work, he uses language practically to this effect: That while we have, we will say—I think his estimate is something like 250,000,000 of potential water power in the United States—that the existing low head streams like the Mississippi could never be utilized. (Of course you gentlemen have heard of the Keokuk development which has since occurred.) Going further, that where the greatest proportion of your potential power existed in the headwaters of the mountainous streams, that could not be utilized because it was impossible to use water at such high head. I believe that this last estimate shows that 72 per cent of the entire potential water power of the United States exists in those mountainous States.

As you may know, in the calculation of power, the Geological Survey fixes its permanent power and bases it on the lowest complete minimum for 12 months in the year, so there is a wide difference between that and your maximum.

One of the reasons for Prof. Swayne's remark about high-head power was this: Your first high head apparatus, the Pelton, was not developed until 1887, or the first installation made in 1888 probably. With that there was some electrical development. It was not until you came to your practical application of alternating current transmission, along in the early nineties, that that thing got a great impetus. Even as late as 1898, when of course there had been extensive development and so on, a gentleman for whom I have the highest admiration, Mr. Leighton—as you may know, formerly connected with the Geological Survey—in his estimates of the available potential water power of the country, takes into account what could be accomplished by storage, which is obvious. But even at that date they had not grasped something else that went with it, and that is the physical inter-connection of watersheds, which is carried out to a perfection by this Southern Power Co.

You gentlemen may all be familiar with the way in which they do it. They have their water powers—that is, I mean, their developed powers—located on several streams with different headwaters back in the mountains. They keep their watchmen there with telephonic connections. We will suppose, for instance, that on stream No. 1 they have shut down the plants there, so that the local

reservoirs or dams would fill, and they are operating, we will say, their plants on streams No. 2 and No. 3. The watchman up at the headwaters of No. 1 telephones in that there has been a very large shower. Immediately the word goes out to start the machinery on stream No. 1, because they know there is all this mass of water coming down, and they let off streams Nos. 2 and 3, we will say, the local dams. Now they are going to carry that even more extensively by the construction of enormous reservoirs back at the headwaters. Well, the net result of all that is this, gentlemen, that out of what your Geological Survey estimates as, we will say, one permanent horsepower, they are getting somewhere from three to five. In short, through inventions and advancement in the engineering art, probably five, six, seven, or eight times as much potential water power has been made available within the last 30 or 40 years as all the water power that has been developed in the United States.

Well, continuing on for a moment, you may know how those large systems in the South are interconnected, which carries this same scheme a little further. Now they, to a modified degree—and the same principles apply to interconnection of large steam systems; and we came very close to it during the war period, as perhaps you know—I believe that within a few years ways and means will be found, either through Federal or State legislation, where a man will not be permitted to waste power. I think that is one of the fundamental things in our national economics. In other words, some manufacturer who is running an old slide-valve engine and chewing up some 30 or 40 pounds of coal per horsepower-hour is not going to be permitted to do it when, through water-power development, he can get his current at a far less figure, or where the best of modern development is using less than two pounds and can produce the same result. But, gentlemen, once more, I have rambled away from my subject.

MR. WARREN. Do you consider, under the present prices, the question of whether the companies should generate or purchase their power is of great importance?

MR. CLARK. No, I do not on the main issue. Of course, they should take advantage of every possible economical feature, but it is so trifling at the present time. Take the street railways as a class—you are always going to find, Mr. Warren, opportunities to introduce little economies, but this is a minor economy and not a big one.

MR. WARREN. The wage item is too big; it overshadows any one or all of these possible economies, does it not, in your opinion?

MR. CLARK. Well, that is a great issue. I would not say it is too big. I agree entirely with what Mr. Tripp testified here yesterday, that it is the reduced purchasing power of the dollar that has created that situation.

MR. WARREN. I do not mean that the wages are too high, but the aggregate amount of wages.

MR. CLARK. That applies to everything else that goes to make up cost of conducting transportation and of maintenance, which are the great issues, as I see it.

MR. WARREN. I think if Mr. Clark will be good enough to furnish that statement which the commission intimated they would like—an historical sketch of the industry and the statement about the

power stations—that is all that I want to ask him. I would be very glad to have the commission ask him any questions.

The CHAIRMAN. Did you intend that the black book that you refer to should be filed with this commission?

Mr. CLARK. Why, I will do it if I can not get you another copy. Knowing where it is, I have to go up to the Public Printer anyway with some other material while I am here and I think I can get you a copy. I will turn it over to you.

The CHAIRMAN. Well, we can get it then.

Mr. CLARK. Surely; and I think I can get you another copy. And apropos of this, before I complete my statement. I think this will interest you, which I will also leave with you. It is in rather bad shape; some photostat reprints which I have had made of a very large number of letters from the mayors of numerous American cities which were published in the New York press in 1892; and I think it may be of interest to the commission when they are examining some of these mayors who will testify, to see what their predecessors said. I will give that to you now [handing papers].

The CHAIRMAN. You have been identified with the street-railway industry since its inception?

Mr. CLARK. No; I would say the electric-railway industry, not the street-railway industry.

The CHAIRMAN. I understood you had worked in connection with the first electric railway or street railway in Virginia.

Mr. CLARK. No; in Connecticut.

The CHAIRMAN. In Connecticut?

Mr. CLARK. In Connecticut. Mr. Sprague, who will be here, you will find—

The CHAIRMAN. Have you had much to do with the operation of these utilities?

Mr. CLARK. To a considerable extent—as much as a man could who was moving all over creation.

The CHAIRMAN. You are familiar with the operating conditions?

Mr. CLARK. Oh, yes; surely.

The CHAIRMAN. Have you had any experience in securing municipal franchises?

Mr. CLARK. A great deal.

The CHAIRMAN. And you know all about the methods employed in securing those franchises?

Mr. CLARK. Yes.

The CHAIRMAN. It has been stated here that there is considerable prejudice existing in the public mind against these utilities. What is the reason for that prejudice, Mr. Clark?

Mr. CLARK. You mean the existing prejudice?

The CHAIRMAN. Yes.

Mr. CLARK. Not those of the past?

The CHAIRMAN. Existing.

Mr. CLARK. To a certain extent, as I see it, certain financial manipulation which should never have occurred; that is, I mean on the part of promoters in certain directions. To a greater extent, excessive exaggeration of what occurred in that regard. And third, and perhaps more important, although none of you gentlemen may agree with me, this: The street railway is the one form of public utility with which the individual citizen, whenever he uses it, is up

against an employee of the company. Now what I mean by that is this, we all have lost our temper—we do these days—with the telephone employees when things are not going very smoothly.

But to my mind more than all the rest it is little annoying things which have happened in most localities; these other causes are contributory. But if a lady comes rushing to catch a street-car, just as it has started, you understand, and does not catch the conductor's eye, she has a grievance. And I would make this novel suggestion, gentlemen, that you go right down here on the street and pick up two or three street-car conductors and let them tell their tales of woe in dealing with the public, and you will get a different aspect of it than you ever had.

The CHAIRMAN. Is much of this prejudice due to the political relations which it is claimed exist between street-car officers and local officers of municipalities?

Mr. CLARK. I do not think so. There was a time when there was somewhat, but I think it is the individual coming in contact with employees, and that has been exaggerated by war conditions, as I see it, when the street railways could not maintain as courteous a character of employees as they had had before.

Now I must confess there is a great deal in local management. Let me illustrate. I do not know what conditions are now, but up to war time if you had gone to the city of Denver and taken a street-car and commenced to ask questions of the conductor, you would have found a most excellent guide to the city, without exception. They had been trained that way, to have pride in the city, and they wished to show it off and were courteous to the extreme. And in other cities, where that had been neglected, you would find that there was a lack of courtesy on the part of the employee.

Now, gentlemen, I am going to give you in this connection—I ought to put this first—a paradox, perhaps contradicting myself, that while I remarked back, I believe the larger you make the public-utility system, under thorough public regulation, of course, the better for the public; but unquestionably a great share of this public prejudice in many localities comes through the absentee-landlord feeling that they have. Do you grasp me? This not only applies to street railways but it applies to others. And I will tell you a rather interesting story, if I may—I do not know whether it should go in the record or not—illustrative of it.

Now very frequently your sensational press will play at that, you understand; and if the lady that I referred to a minute ago has an incident like that happen on a street-railway system that is controlled in the East, which is located in the South or West, that is a local grievance against it. I think that has far more effect than is generally supposed. But there is a wide difference between the way in which certain of these properties are handled, and I will tell you this story which relates to a combined gas and electric central station—a very extensive one. I would prefer not to give the name of the town for certain reasons, but it is a town I have known very well for over thirty years.

On my arrival there some three or four years ago, I was invited to a dinner, a sort of get-together dinner that they have there in the town, of the business men—I have forgotten what the association

was—every week. And I sat next a former United States Senator whom I had known for a great many years. He chanced to own a newspaper in that town and his newspaper had always belabored the public utilities, as I had well known for 30 years. But, in the meantime, this property which I referred to, a few years previously had drifted into other hands, and I had noticed that the paper was dealing with it extremely kindly. So we visited at the luncheon table and I said, "Senator, how is it that your paper is treating the gas and electric company so nicely"? He says, "My God, they give us service; they are courteous; they are gentlemen." He says, "If I make a complaint, before I have hung up my receiver on the telephone they have a man on a motor cycle coming out to fix it." It made a great impression on me, and I went further west and I returned to this town. At a junction point some miles away I picked up a morning paper and I found a great big headline in the Senator's own paper: "Public-spirited action of so and so," referring to the financial interests that controlled it, in marketing the civic-center bonds without cost to the city.

Now that foreign landlord, if I might use the expression, had the town and the people—they were behind him. About 150 miles away I went to another town which was not so large and where the reverse was true and where I think the error had been made by the home interests in not giving the local management sufficient authority. And I talked with the manager. His ideas were all right, but the newspapers were hammering the whole institution. Everybody in town was down on it. And I think you could trace it right to this, as I say, something starting off this feeling that it was an absentee landlord that controlled the property and consequently they were against it.

But, as I have said before, I think the great reason why the street railways are hammered is because of the little things that grate on the nerves of those who patronize them and are considered as personal grievances against the company.

Commissioner SWEET. Was the name of the newspaper owned by the United States Senator the Herald?

Mr. CLARK. No.

The CHAIRMAN. Of course, we all know that service has much to do with irritating or soothing public opinion.

Mr. CLARK. Exactly.

The CHAIRMAN. And one of the more basic factors apparently has been the disposition on the part of the utilities to make good deals with cities or villages.

Mr. CLARK. Naturally.

The CHAIRMAN. The city had something to sell and the corporation had something which it wanted to buy.

Mr. CLARK. Exactly.

The CHAIRMAN. And an arrangement has been made which sometimes has been prejudicial to public interest.

Mr. CLARK. Unquestionably.

The CHAIRMAN. Is not that the real thing that has developed a great deal of opinion against public utilities? Much of it may be fancy, but—

Mr. CLARK. I think most of it is fancy. There has been some of it, unquestionably.

The CHAIRMAN. Now, have you had much to do with dealing with regulating officials—State as well as municipal?

Mr. CLARK. I can not say that I have. I have had somewhat to do with it, but my experience has not been extensive. You see, I brought this baby up until 1899, and then I accepted a transfer from the management of the General Electric Co.'s railway department to its foreign department, and I spent practically seven years abroad; and I continued to manage the foreign department until we developed what we called the traction department, which is dealing with the electrification of steam railways; so I have not been brought in that direct contact with the public-service commissions that I was in for very many years with State legislatures and municipal authorities, and all that sort of thing.

The CHAIRMAN. You stated that the tendency of these utilities is to branch out beyond the boundaries of cities and villages?

Mr. CLARK. Yes.

The CHAIRMAN. That applies to gas companies?

Mr. CLARK. Not to gas companies so much—or let me qualify that answer. Of course, your natural-gas companies do go long distances, and I think there are a few cases in the country—I am not particularly familiar with the gas industry—where they have gone so far to-day that they are pumping artificial gas. I think there are two or three cases of that sort.

The CHAIRMAN. Is it not quite true that these gas companies, as well as electric companies, are branching outside of the city limits?

Mr. CLARK. Unquestionably.

The CHAIRMAN. And is not that going to continue to be the tendency?

Mr. CLARK. I believe it is, and I believe that tendency should be encouraged in the public interest.

The CHAIRMAN. That raises the question of the proper form of regulation of these utilities.

Mr. CLARK. It does.

The CHAIRMAN. Their rates, as well as their service and capitalization.

Mr. CLARK. Exactly.

The CHAIRMAN. If these utilities extend beyond the confines of a village or city, how are they to be regulated efficiently by the city officers?

Mr. CLARK. They can not be, in my opinion.

The CHAIRMAN. Of course, it has been suggested that a city might own the plant and extend out until it occupies the streets of other villages or cities.

Mr. CLARK. Yes, and then you have a civic jealousy raised.

The CHAIRMAN. Would not that raise a good many difficulties in this way: It might be proper for the utility to charge one rate in one city and another rate in another city?

Mr. CLARK. Exactly.

The CHAIRMAN. And there would be immediately a conflict arising between the two places.

Mr. CLARK. Unquestionably.

The CHAIRMAN. If that is so, where should the power to regulate apply?

Mr. CLARK. With the State, in my opinion; and when it comes to interstate, as it is coming very fast—that is, not in the street railways so much; of course, the Interstate Commerce Commission has jurisdiction over those—but the thought that was in my mind was the central station, that I think in due course there should be Federal regulation of those.

The CHAIRMAN. It has been suggested here that the proper solution of your street-railway difficulty is the cost-of-service plan. Are you familiar with that?

Mr. CLARK. In a way.

The CHAIRMAN. A cost-of-service plan properly agreed to would be absolute perfection to the invested capital, would it not?

Mr. CLARK. So it seems to me.

The CHAIRMAN. Of course, one of the principal items in a contract of that kind is the value of the plant.

Mr. CLARK. Certainly.

The CHAIRMAN. In agreeing upon the value of the plant for that purpose is there not apt to be a good deal of conflict of opinion between the utility and the city?

Mr. CLARK. Why, yes. Without seeming egotistical—I made the first physical valuation of any large public-utility corporation in the United States in 1896. We called them appraisals then. It was in Milwaukee. The Federal court accepted my appraisal—we will use that term instead of valuation—which was something like \$5,300,000, I think—or \$5,250,000—whereas the city experts had, I think, found a valuation of about \$3,000,000. The proposition—this may interest you gentlemen—was a little different in the way in which it was put up—that is, as the court called for it—than is done to-day.

There were two problems submitted, one was exact reproduction less depreciation cost, and the other was the cost of constructing a similar system to the same extent over the same streets, and all that sort of thing, in accordance with the best of modern practice. This may interest you, that the reproduction theory worked out at the figures I have stated. The other would have cost something like \$2,000,000 more because of increased weight of rail, and all that sort of thing, that came in.

The CHAIRMAN. In view of the fact that corporations in the past have found it expedient sometimes to corrupt public officers in securing franchises, do you think there would be any danger in the future of their exercising the same conduct in agreeing upon a valuation of a plant where they undertook to agree on a cost-of-service plan?

Mr. CLARK. There might be a slight danger, but I think that—

The CHAIRMAN. Is not that a real danger where you are dealing with local officers?

Mr. CLARK. With local officers, unquestionably.

The CHAIRMAN. I am talking now only of local officers.

Mr. CLARK. Oh, unquestionably; I agree with you.

The CHAIRMAN. If that is so, then would not the public be better protected if the value in all matters of this kind should be determined by proper rate regulative officers?

Mr. CLARK. Unquestionably.

The CHAIRMAN. That would remove the element of bargain and sale, would it not?

Mr. CLARK. It certainly would.

The CHAIRMAN. Then do you think that, where cities agree to purchase a plant, it should be based upon a value found by the State?

Mr. CLARK. I do not see how you are going to determine it otherwise.

The CHAIRMAN. If your cost-of-service plan is adopted, do you find any opportunity for the State regulating commissions to pass upon the question of a rate?

Mr. CLARK. Well, as I have understood it, it is this, that the State regulating body would temporarily fix these rates. Is not that your theory?

The CHAIRMAN. I do not so understand, under the cost-of-service plan.

Mr. CLARK. I had supposed that they were—it has been shaped up in several different ways, but I had supposed it would operate this way: We will suppose that under your cost-of-service plan, we will say 6 cents was found to be a fair rate, you understand; if you had an unusual situation arise which might make a 7-cent fare necessary, that it would be your public-service commission which would determine that fact. Now—

The CHAIRMAN. After the contract was made, then the rate becomes self-executing, does it not?

Mr. CLARK. I think so practically, but I supposed the public-service commission would come in there—

The CHAIRMAN. In view of the fact that that sort of plan guarantees a return to capital, can you point out wherein the public is properly protected? Let me explain. If there is any danger in a guaranteed return, it is that there would be no proper check made upon operation. It may be expensive or it may be economical, it may be extravagant or not; but there is no protection to the public from that sort of operation. Now, how are you going to safeguard the public against inefficient operation or extravagant operation under your cost-of-service plan?

Mr. CLARK. I should say through the public-service commission.

The CHAIRMAN. Local or State?

Mr. CLARK. The State, every time.

The CHAIRMAN. Naturally there will be extensions and improvements made by these plants even under a cost-of-service plan.

Mr. CLARK. Exactly.

The CHAIRMAN. Who is to pass upon the question of security issues and the expenditure of the funds for that purpose?

Mr. CLARK. The State commission, I should say, although as I remarked at the outset, I wish there were some way where you could use the referendum once in a while on the more important features developing in connection with anything of this sort.

The CHAIRMAN. Do you believe, Mr. Clark, that the real difficulty in the street-car situation is the fixed 5-cent charge?

Mr. CLARK. Basically, yes.

The CHAIRMAN. That is the basic difficulty?

Mr. CLARK. Yes, that is where the great error was made, as I see it, at the foundation of the industry.

The CHAIRMAN. Then is not the big relief to the utilities coming from a change in the franchise system through an elastic rather than an inelastic charge?

Mr. CLARK. Yes, I think so. It must——

The CHAIRMAN. If you are to have proper State regulating commissions with the authority to prescribe rates, do you not think that would largely remove the difficulties under which you now operate?

Mr. CLARK. Oh, I think it would to a very great extent.

The CHAIRMAN. Would that contain a larger amount of protection to the public than can be found in your cost-of-service plan?

Mr. WARREN. A larger amount of what, Mr. Chairman?

The CHAIRMAN. A larger amount of protection to the public.

Mr. CLARK. Possibly it might. That is, I believe that there should be public regulation. As I say, I wish also there was some manner—I do not see how it can be done—that on the graver problems you could go direct to the public. Now, if you will pardon me for digressing a moment, there is a feature involved I do not think has been touched on here. If it has, I have not heard it.

To the best of my belief, no street-railway dividends have ever been paid by necessity riding, if I may so term it. I hope you grasp what I mean. That is, all of my experience goes to show that it has been, so to speak, cultivated traffic—making it attractive to the public, so that they will ride.

Now, I had hoped not to get into this feature of it that we are dealing with now, because I do not pretend to be an expert on it; but in this situation arises this feature, as to how far you should go in rates, you understand, in the way of advancement to avoid killing your traffic. You doubtless know, although I do not think it has been brought out here, what has occurred in some of these cities where the rates have already been increased. A corresponding increase in gross receipts has not developed.

Coming back and applying this thing, if I may, to certain conditions that you have touched on—I am not saying that this would be practicable—but I can conceive of conditions where, under any system, if all that is essential to the construction and operation of street railway continues to increase in price, and where, apparently, you would have to keep going up and going up with your fares, certain communities might be willing to carry part of this burden themselves in the form of a subsidy.

That is one reason why I have hesitated to emphasize my theory here; but I am just expressing my opinion, because, after all, they are the ones whose interest must be first considered—the public; but I think, as I say, on this present scheme—I am not sufficiently well up on it.

By the way, gentlemen, before I leave, I would like to make one more statement.

Mr. Tripp, for whom I have the utmost admiration in every way, in his testimony of yesterday, referring to the change from cable to electric railroads, made one statement which I do not think was quite correct, and which, I believe, was to the effect that this was done purely on the part of the companies because of its economical value.

Now, I think there is something more involved.

I think you will find in print a statement made by the Metropolitan Railroad of New York, about 1894 or 1895, after they had some experience with electrification. Of course, they were mostly cable, and that gives the reasons for changing to electricity—that there

was a reduction in the accident account. The quick snap and jolt of the cable car was more dangerous than electric cars.

I think, right in this town, you will find one of the best illustrations of a similar character, as regards the Capital Traction Co. As you may remember, their main lines were, all of them, operated by cable for years. The cable house was located about where the Municipal Building now is, and in 1894—I think it was—it was burned down. I came here in a hurry to try to help them out of their difficulty, and I thought I had accomplished wonders. I thought I saw a way in which they could start with new operation, as a cable road, within two weeks, because I found cable-winding machinery; I found a generator which could be attached as a motor to operate this winding machinery, and I thought the then electric-lighting company had sufficient current to spare so that they could throw up a shed there and start operations; but when I reached the executive offices of the company—Mr. Dunlop was then president; Mr. Glover, of the Riggs National Bank, was vice president; and I think Mr. Carl was the chief engineer of the property—I was surprised to find that this wonderful thing I had to suggest, out of which we were not going to make very much money, was not what they wanted, for the very reasons that I have stated—that they were anxious to get rid of their cable, to reduce, among other things, this accident account.

Now, gentlemen, I must apologize for taking up so much of your time.

The CHAIRMAN. You may go right ahead, Mr. Warren.

MR. WARREN. I will ask Prof. Cooley to take the stand.

STATEMENT OF MR. MORTIMER E. COOLEY.

MR. WARREN. Prof. Cooley, you are dean of the College of Engineers and Architecture of the University of Michigan, are you not?

MR. COOLEY. Yes, sir; I am.

MR. WARREN. You are also president of the American Society of Mechanical Engineers, are you not?

MR. COOLEY. Yes, sir.

MR. WARREN. And you have taken part in a great many valuations, as an expert on valuation, I believe?

MR. COOLEY. I have taken part in a great many valuations. I at one time considered myself an expert [laughter], but I now regard myself more as a student. The many new problems that have arisen, I think, require one to take the attitude of a student.

MR. WARREN. I think the commission would like to know some of your conclusions as your studies have progressed. How long have you been engaged in the valuation of street railways?

MR. COOLEY. Twenty years. I began in 1889 on public-utility-valuation work.

MR. WARREN. And can you give the commission any idea of how much property, in value, you have had occasion to consider in this way?

MR. COOLEY. Yes, sir.

I started my work in valuation in 1899, working for the City Commission of Detroit, of which Maj. Pingree, Lawyer Stevenson, and Manufacturer Smith were members. It was the time when Detroit was considering the purchase of the street railways, and

Tom Johnson represented the street railways. We made this valuation in the summer of 1899. The purchase fell through.

The next year Pingree was governor, and he desired to have the so-called specific tax-paying properties of the State of Michigan put on an ad valorem basis; and the legislative act had been passed requiring the board of State commissioners to have an investigation made to determine whether they should change from one basis to the other; and I had charge of that valuation in 1900. As a result of it, the legislature passed an act transferring from a specific to an ad valorem basis for the railways of Michigan. That valuation amounted to about \$200,000,000 for the railways. But it was not confined to the railways; it also embraced the telegraphs, telephones, the plank roads, the river improvements, the express companies, and private car lines. They were all specific tax-paying properties, and so their valuation, in total, amounts to about \$240,000,000.

Then, under the act transferring these properties to an ad valorem basis, the State board of assessors were required to make the assessment; and that was done in April, I believe, of 1902.

The railroads then brought suit to enjoin the auditor general from collecting taxes; and that resulted in another valuation.

But I am a little ahead of my story.

The law required the assessment to be as of a particular date, and that required a valuation to be made as of some date in April in 1902 or 1903—I have forgotten precisely—and for the railways alone the value as of that particular date was about \$240,000,000.

Then the railroads sued to enjoin the auditor general from collecting taxes, and that resulted in a third valuation in 1905; and the properties were then found to be worth about \$280,000,000. That suit was carried into the Supreme Court of the United States, and decided in favor of the State, and brought some \$13,000,000 of back taxes to the State.

That was the first big work of the kind, I think, that was ever done in this country.

Almost immediately came the valuation of the railroad properties in the State of Wisconsin, and I was consulting engineer on that valuation.

Just a little later came a valuation of certain of the railway properties in Newfoundland—properties that were going to be transferred from private to public ownership—and I took part in that valuation.

Then, in 1906, the city of Chicago tried to settle a quarrel of some 15 or 20 years' standing, and I took part in the valuation of the Chicago street railways as one of the board of commissioners there. That valuation amounted to about \$50,000,000.

Then, next, I was in Milwaukee in connection with their valuation—some \$15,000,000 of railway property—before the Wisconsin Railway Commission. It was at that hearing that the so-called Wisconsin method of finding the going value of the concern was evolved. I had some little part in that.

The CHAIRMAN. Did you take part on behalf of the State?

Mr. COOLEY. Up to the Milwaukee valuation, all of the others were State employment, and I might state right here without enumerating in detail all the properties with which I have been connected—there are several hundred of them, and they aggregated in value

somewhere between one and a quarter billion and one and a half billion dollars—from 85 to 90 per cent of all that work has been done for and paid for by the public.

The more recent work that I have been engaged on—in fact, we are just finishing it; I have to write the report as soon as I get back—is the valuation of all the properties of the Michigan United Railways.

I am also just employed by the Michigan Railway Commission, or rather, the public-utilities commission, which has just been created, to bring the valuation of the Detroit United Railway lines, which was made in 1914 for the Michigan Railway Commission, down to date.

Those two properties—the Michigan United Railways and the Detroit United Railways—embraced practically all of the railway mileage in southern Michigan; I mean all of the electric-railway mileage, not only interurban, but city properties as well.

Then, two or three years ago, I had charge of the valuation of the electric railways of the Public Service Railway Co. of New Jersey, which is a pretty large proportion of all of the electric railways in New Jersey.

I also worked on the Cleveland application at the time Judge Tayler rendered his famous decision, and I have had some part in the New York State Railways case before the up-State commission.

I also appeared before the down-State commission on the Metropolitan Railways, I think they are called, in New York City.

Mr. WARREN. How about Washington?

Mr. COOLEY. Oh, yes; I took part in the valuation of the Capital Traction Co. here in this city three or four years ago.

These companies that I have just been mentioning are all electric railways, but I have also had to do with telephone properties of the New York State Telephone, the Pennsylvania, and the Baltimore, or rather, the Baltimore & Potomac—I think they call it—and have valued the telephone properties and electric and telegraph properties of Michigan three different times.

I merely speak of that, because it does not make any difference, as I have found, what the nature of the utility property is. The fundamental principles involved in their application are all alike.

Mr. WARREN. Prof. Cooley, I think you have thoroughly qualified and have gotten it into the record. I would like to ask you now, were you at the Naval Academy?

Mr. COOLEY. Yes, sir; I graduated as a cadet engineer in 1878, and had all together about between 11 and 12 years' service in the Navy as an engineer officer. I resigned after I had been at the University of Michigan for four years under a detail from the Navy Department, and then went back in the Spanish-American War as chief engineer.

Mr. WARREN. What would you say was the keynote of the troubles, so far as you have found troubles—and I assume you have—in this valuation question?

Mr. COOLEY. There is not very much trouble now in valuing a property. Valuation has been very much simplified, very much organized, and it is not a difficult matter to procure results, and they are reasonably accurate; but the great difficulty—and I myself think

it is the keynote of all our trouble to-day—is ignorance, sheer ignorance and lack of understanding by the public, very largely, but not confined to the public—a lack of understanding by the railroads themselves of the fundamental principles that are involved in all questions of valuing property, and especially all questions that are involved in fixing rates. If we could have a campaign of education which will make perfectly clear these things that are now misunderstood, I think the trouble would disappear almost wholly.

I am convinced of that, and I have been trying to do my part in dispelling that ignorance, but it is very difficult. The attitude of the public mind is such that you can not approach them; you can not make them listen to you; they won't believe you, and I do not know that they are to be altogether blamed for it, because they have been sorely tempted in the past. I think the public-utilities companies all admit to-day that their own conduct in the past has, to some extent, merited the difficulties that they now find themselves in.

I make no defense, and the utilities themselves make no defense, of the mistakes that they have made in the past. The utility companies, as a rule, now see what mistakes they have made, and are trying their best to remedy them; but the public is not yet willing to meet them anywhere near half way; and so I say it is a case of ignorance—a greater amount of ignorance on the part of the public than it is on the side of the utility.

MR. WARREN. But you say that as a general proposition the factors in any valuation are the same as in other cases?

MR. COOLEY. I think myself that the factors that enter into a valuation of any kind of a utility property are just the same in the case of a steam or electric road or a gas or water-works property or a telephone or telegraph property. They are all practically the same, the same fundamental principles, the same fundamental elements; and when you have described the process of valuation of one property, and have all the factors in connection with that property, you have them all in connection with the other property. There are about 18 or 20 of them, depending upon how much subdivision you give all factors that you can not fail to take into consideration in every rate-making case.

MR. WARREN. Will you say something on the historical development of those factors, Prof. Cooley, and then run over them?

MR. COOLEY. Yes.

MR. WARREN. I hesitate to ask you questions, because I know you know so much more about the subject, Prof. Cooley, than I do.

MR. COOLEY. It is rather difficult to talk on this subject, because it is so easy to talk—what I mean is that there is so much that can be said and that one can talk a very long time, and I would like very much to confine myself to the particular things about which the information I can give would be wanted.

MR. WARREN. Well, it has been suggested here that in case the commission should make recommendations along certain lines, as, for instance, possibly a service-at-cost recommendation, that that might involve, perhaps necessitate, a basis for any such plan for any particular company, and the valuation question has arisen and has been discussed by some of the witnesses as to what sort of a valuation and upon what basis it should be made.

Mr. COOLEY. Then, perhaps I might start by discussing what we will call factors determining a reasonable charge for public-utility service.

Mr. WARREN. I think that would be very useful.

Mr. COOLEY. That will not involve my going into the details of valuation, unless it be desired.

The CHAIRMAN. Let me make this suggestion: Perhaps the commission should give some consideration to the question as to whether we should enter into a very full development of the proper principles of valuation. It is a question whether our commission shall make any finding, or even should make a finding, as to the proper elements which should be included in the physical valuation of a plant. We are dealing with fundamental principles and fundamental evils.

Mr. COOLEY. I will endeavor to take up what I understand to be your point; but what I did not want to do here was to go into the detail of physical valuation and take up the value of ties, rails, and cars and different elements of the physical property.

Mr. WARREN. I might suggest, Mr. Chairman, that I suppose that is a matter which the commission will consider in executive session, as to whether they will make any recommendation about the valuation, or as to the elements entering into it, or the basis upon which it should be made. It might help the commission in its consideration of that question if they themselves—you and other members of the commission—were to ask Prof. Cooley any questions that seem to have particular pertinence to your decision on that question.

The CHAIRMAN. There is so much to be said on that subject of valuation that if we go into it we can occupy a whole month in just taking that testimony alone.

Mr. COOLEY. Yes. I have found in presenting this subject that it makes for quicker and easier understanding if you, the gentlemen whom I am addressing, consider yourselves the individuals who enter into, or propose to enter into, the enterprise or the project of building a railroad property. Each one of you gentlemen may, therefore, consider yourself the originator of a railroad property, and I am going to try to tell you what you will do as you proceed with your study of the problem as you proceed with your work. I think that will bring it home perhaps easier than any other way.

The first step will be for you to inquire whether the project is feasible. You will not want to go into it unless it is feasible, and this will involve a preliminary investigation. You will want to sound public sentiment to know to what extent the proposed service would be demanded or would be desired, what concessions would have to be obtained in the matter of property consents, and the conditions under which franchises could be obtained. If these inquiries have resulted favorably, the next step would be to employ engineers to look over the field and make preliminary surveys and estimates of cost, and determine upon the feasibility of the project as a whole from an engineering point of view. With this information thus far accumulated, your next step is to go to your bankers and see about the financing of the proposition. If they decline to finance it—if you can not make a sufficiently good showing to induce money to come into the project—it falls through, and all the time and all the money that you have spent up to this point disappears. You write it off:

You have not anything to show for it, and it is a good deal of a sum of money that these preliminary steps involve. You may not know how much it will be; but the best investigations that I have been able to learn about indicate that these preliminary costs that I have just mentioned to you may run as high as 5 per cent of the total cost of the property, from 2 to 5 per cent. Now, that is a great deal of money. If you have a \$100,000,000 property, that may mean anywhere from \$2,000,000 to \$5,000,000. Of course, I have barely outlined that. But should the future promise be great enough to interest capital mildly, let us say, at the outset, the banker may be induced to gamble a bit, and he will make you a proposition of what he will do. If the gamble is a good bit of a gamble, you will have to pay a good bit of a price for it. If it is a small gamble, you will get a corresponding reduction in the way of discounts, stock bonuses, and things of that sort.

It is a gamble, you understand, up to this point.

The CHAIRMAN. Do you mean to say, Professor, that the bankers gamble with the money that they have in their possession?

Mr. COOLEY. I do not mean to say that they gamble in the sense of putting the money on the table, but they gamble in the sense that you have gambled when you have made your preliminary investigation of this property. You have made up your mind it is a good thing, and you go into the thing. You do not know that it is a good thing until you have actually brought it to completion and tried it out. Now, the banker makes up his mind one way or the other. There is always an element of doubt, but he tries to make that element just as small as possible; nevertheless, it is in the nature of a gamble up to the time the property has demonstrated whether it is good property or poor property.

Commissioner SWEET. There is an element of chance in it?

Mr. COOLEY. That is it. I used the word "gamble." It is an element of chance. That is precisely what it is, and the number of wrecks is very, very large.

Now, you have got your property on its feet, so far as knowing that the project is feasible and that you can get your money for it.

The next thing is to begin to do business. You hire your engineers and you organize your staff and your legal help. You make an organization which corresponds very closely to the organization that you are going to use after the property is put into operation. You make all the careful surveys that are necessary. You write all the specifications. You go through all the steps that will enable you to procure the physical property complete in all of its details.

Now, that is a preliminary part of the actual construction work. In other words, all of this organization work and these preliminary plans have followed the development of the project and are the beginning steps of the actual building operations.

When all of this work has been done, these surveys are completed and the actual work itself begins.

Now, at this point, the knowledge of the public begins. The public knows nothing about the things that I have been talking about up to this moment. They are ignorant of those. They can see that the cost of the property begins when you start to lay the ties and to buy the land.

I doubt if it is necessary at this time to describe in detail all of the various steps of building up the physical property. We can do that later, if you desire it.

The CHAIRMAN. You may omit it for the present.

Mr. COOLEY. I beg your pardon?

The CHAIRMAN. That may be omitted for the present.

Mr. COOLEY. Yes. But when you have got through with this physical property—and it has taken, perhaps, a year, two years, three years or four years, depending upon its magnitude and extent, depending upon market conditions with respect to material and labor, depending upon the extent to which the municipality will permit you to dig up and disturb its streets, depending upon a large number of factors. It has taken from one to three or four years to complete this property, to build the physical structure, the structure which corresponds with the hotel structure, we will say, or to the merchant's establishment—the physical structure.

Now, you can build that structure in several different ways—and I speak of that because it is another point of doubt, of ignorance. The company can organize its own construction force and build it itself, hire its own labor and buy its own materials; or it can let it by contract. It can let it to a general contractor, who will, in turn, sublet different parts of it. All of those are legitimate ways of building properties, and properties are being built that way all the time.

Now, suppose, for example, the property has been let to a general contractor, and he, in turn, has sublet it. Each of those contractors makes the closest possible estimate that he can make of the cost, and when he gets his estimate made, he adds a contingency item, always. He never fails to do that. He submits that figure to the general contractor, and the general contractor, who is responsible for the complete job, in turn, submits the aggregate of all of his subcontractor's prices to the company, and, in turn, adds his contingency and takes his profit out of it, the same as the subcontractors. Each has got to have a profit. Otherwise, they are not going to build it.

Now, the public does not know that. They do not think that. In 20 or 30 or 40 years after the property is built, they send you to value it. You do not know whether it was built by a general contractor and sublet. You do not know anything about that. You can not find out anything about it. The history of the property does not exist any longer, except in the memory of the oldest inhabitant, which is not always very accurate.

So, we have to adopt some plan of figuring what it would cost to reproduce that property; and it is our effort in valuing property, to choose the most reasonable plan. The company will build certain parts of it, we will say, because it can. It will sublet it, maybe directly, to a subcontractor, who will build certain other parts of it. We always utilize what seems to us to be the most reasonable plan of rebuilding or reconstructing the property.

The public, as a rule, does not know that the contractor to-day must insure all his labor. Accidents and liability insurance and fire insurance, and all of those things, have to be taken into consideration during the progress of the work. The public does not know, for instance, that the company building this property has to make arrangements for its money before it starts to build at all and has got

to carry the interest on that money during all the period of construction. It does not know that.

The public does not know that the company has got to pay taxes on all of that property. It has to pay taxes on the land, and if it takes three years to build, you have bought your land presumably at least a year ahead, and you have four years' taxes on the land that have to be paid while you are putting up your property.

You are the gentlemen who are building this property. That is why I am speaking to you this way. These are the things that you gentlemen would do if you were engaged in this project.

Now, I mentioned one item, namely, this contingency item. I suppose that contingency item is receiving more attention in hearings before commissions than almost any other item. In the earlier days we did not hesitate to add 10 per cent to the estimated cost of reproducing that property. When we got the value of the property, we added 10 per cent at the very end. That was taken, accepted, and recognized as perfectly proper, the idea being to do just precisely what the contractor does. But you can not do that any more. We do not do it any more. We even go so far in valuing property to-day as to add one contingency item in connection with roadway and track and buildings, for example, and another contingency in connection with cars and machinery and things of that sort. Take the piping that comes around a steam-engine plant and the wiring that comes into the station. You must add 20 or 25 per cent for a contingency item for that, whereas 2 per cent is enough in certain other cases; but when you have got through, you have—if you have done your work fairly and as it should be done, in order to be safe in every way—to add to the unit costs that appear in connection with the physical property elements themselves what is equivalent to about 5 per cent contingency. Then, when you get all through, you have to add another 5 per cent spread over the whole property. You have to do that in order to be safe.

So you must not go into this, gentlemen, unless you have protected yourselves amply.

I could talk for hours on the things that happen that make a contingency item necessary. I can cite you one example, an extreme example—the Detroit River Tunnel.

That tunnel was dug in a new way. It was excavated from under the water, from a great ditch dug across the river, and then the tunnel built in steel sections and sunk in place and connected up and covered with concrete. That had never been done before.

The New York Central Railroad and the other railroads interested, forming the tunnel company, debated for a very long time whether they should build that tunnel themselves or let it by contract. The contractor added \$1,000,000, I think it was—I will not attempt to be precise on that, but it was an enormous sum—not 10 per cent, but say 50 per cent—for contingencies, because he did not know what he was going to encounter; and this tunnel company considered very carefully whether they should accept his proposition or build it themselves and take a chance on the 50 per cent, and save it, if possible. They decided it was better to let the contractor assume the responsibility. And he did; and he cleaned up a clean million dollars on it. He had good luck.

The next tunnel will not cost as much; it will not cost anywhere near as much, but that was the first one that was built that way.

Now, 20 years from now, you will send somebody to appraise that tunnel. You do not know anything about this 50 per cent contingency item. You do not know anything about this tremendous profit to that contractor, Butler; but you go ahead and you estimate it in the best way you can, and you take into consideration the conditions of building tunnels that exist when you make the appraisal. You are not going to get anywhere near the value of that tunnel, or the cost of it, and if you do get it, is it going to be allowed? Not if certain men can prevent it. It never will be allowed. You can not get that by. And yet it was an absolutely honest and very carefully awarded contract, and the work was done by honest and reliable men on every side.

So I say, with respect to this contingency, it may vary all the way from 2 per cent up to 25 or 30 per cent. It will average inside of 10 per cent—5 per cent on the inside in connection with the details and 5 per cent on the outside—spread over.

Mr. WARREN. When you give that figure, Prof. Cooley, you base it on experience in actual cases, do you?

Mr. COOLEY. Yes, I do; out of a very great deal of experience, and not only that, but I base it upon actual expenditures as they have been found by the vouchers. It is not a guess any longer. It was a guess in the first place, but it has gotten beyond the guessing stage.

The CHAIRMAN. This question of contingencies has been argued before the Interstate Commerce Commission in the railway matter for a long time.

Mr. COOLEY. Yes, sir.

The CHAIRMAN. Are you aware of the finding which was made upon that question in the Texas Midland case?

Mr. COOLEY. No, I am not; I am sorry to say.

The CHAIRMAN. Perhaps it may be of interest to you to know that the Interstate Commerce Commission did not fix any value for contingency in either the Texas Midland or the A., B. & A. case.

Mr. COOLEY. You would not have to fix any contingency item at all if you could get the historical cost of the property, if you knew what the property first cost, starting from the very beginning. You can take that cost out of the box, and that, of course, is the thing to take, because it represents the money invested; but, unfortunately, you can not do that with the old properties, at least. You may do it with the newer properties. So, we proceed in the best way we know how to approximate that cost; and it is my belief that this so-called cost of reproduction method is the fairest approximation to what would have been the book costs if you could have had them, if you could get them.

Commissioner MEEKER. Suppose, in the meantime, the costs of labor and material have advanced from 50 to 100 per cent?

Mr. COOLEY. Yes; I am very glad you mention that right here. I was going to speak of it a little later, but right there that leads me to say that in making the statement that I just now made I was assuming normal times, normal conditions—conditions that existed well before the war—and did not have in mind the extreme costs of labor and materials that we now have to bear.

I think I should not fail to make this point, which is not usually conceded, I may also say, and which has to be in the nature of an expression of opinion. I have frequently said that, in my opinion, if we could have the so-called book costs—the historical costs—and have all of them, going back to the very day you gentlemen thought of this project and decided to go into it, it is my belief that that cost would be greater than the cost of reproduction in normal times; and the common opinion is, or the common belief is, that it would be very much less. I believe it would be more.

Now, I do not believe I can prove that, but that is a belief that has crept in upon me, in view of my study of this problem during all of these years.

Commissioner MEEKER. Well, it is a matter of common observation that improvements in construction and all of the other items that you have mentioned have come about with the passage of time; so that it would seem to be a rather foregone conclusion that the cost of reproduction in normal times, barring cataclysmic world wars, would be less than the cost of actual construction.

Mr. COOLEY. I am very glad to hear that statement. It is the most consoling thing that I have heard in a long, long time. I thought I was alone.

Now, when I spoke of building the property by a general contractor, who might sublet, I also should have spoken of another way, known as the cost-plus, a percentage method, which has been used much in recent years. I do not need to describe it. It merely means that the engineering firm, or whoever builds the property, renders a complete account of all the costs, and when he gets through he adds a percentage on it. That is his profit. The idea is this, gentlemen, that there are profits going to somebody all the way through the building of this property. Now, you can not get away from that, and I don't want you to get away from it, because the public does not understand it, and they object to it. They do not want anybody to get a profit, and yet there are profits going to somebody all the way through, and you can not build the property without there being profits.

Now, so much for that.

I have already mentioned incidentally this question of taxes that have to be paid. If you bought your land the year before construction organization, and the construction period is, say, three years, you are paying four years' taxes on the land. Engineers have usually lumped it as a half of 1 per cent, or 1 per cent, or something of that sort, in the past, but to-day they are figuring out to see what it would actually be, and they are even going so far as to search the records to find out precisely what the company has paid for taxes, and instead of its being one-half of 1 per cent or 1 per cent, they are finding upward of 2 per cent.

Now, there is one other point in connection with taxes that should be mentioned. It has particular reference to the question of municipal ownership. The public believes that if the city owns the property, it does not pay any taxes, and, as a matter of fact, it does not pay any taxes directly; that is, the public utility is excused from paying taxes, but the taxes—the money to run the city government and the State government—have to be raised, whether the city owns

this utility or a private company, and if the city takes over the property and it does not pay taxes, then every citizen has to take a share in paying those taxes.

Now, that is not ordinarily understood, and it should be, of course. They throw up their hands and pooh-pooh when you speak of it to them. They are getting something for nothing.

I might mention a few of the items, just a few, that appear under the head of organization, administration, and legal expenses. This heading is rather elastic. It is sometimes made to include all of the preliminary expenses that I have discussed at the outset—costs of promotion, certificates of necessity, mortgage tax, fees of incorporation, securing franchises, and other general expenses, and it runs, say, from $2\frac{1}{2}$ to 5 per cent.

The question of the promotion of an enterprise and of promoter's profits, is another red rag to the bull, and it is in connection with these promotion costs and promoter's profits that the public thinks that a good deal of the water has gotten into the capital account. And I suppose there is water there in a great many cases, but there is very, very little water in recent cases, as far as my observation goes, and much less water in the older cases than the public believes, because when you write your securities the bonds are protected by a mortgage on the physical property. The face of the bonds is not equal to the cost of the physical property, but some percentage of it. It may be 50, 75, or 85 per cent. The practice was to allow 85 per cent in one case that I knew about.

Now, that 85 per cent, we will say, is written in the form of bonds protected by a mortgage. As soon as you have taken the precaution to get into the cost of the property all of these preliminary costs and all of these other costs that I have been discussing or will discuss, you are not going to have anywhere near the full cost of that property represented by the mortgage and by the bonds. Now, you must raise the rest of the capital in some other way—by stock, or whatever it may be. But say it is stock.

If we have got 75 per cent of the cost of the property in the form of bonds, protected by a mortgage, there must be at least 25 per cent more in the form of stock, as we ordinarily think of our property, that is, just the physical property, as the public sees it; but, in addition to that, we have got to have another 25 per cent, it may be, to cover all of these things that you gentlemen know about—expenses which you have incurred and which do not appear in the valuation at all.

So I say, to some extent, this so-called water in the capital account is fully and amply justified. Remember, I say to some extent. I do not say it is all justified, for I do not think it is in all cases.

The CHAIRMAN. Prof. Cooley, did you hear Mr. Bradlee's testimony?

Mr. COOLEY. No; I just came in this morning.

The CHAIRMAN. He testified that it was quite the common practice in the past to give one share of common stock with each share of preferred stock, and that was a sort of "hope" stock.

Mr. COOLEY. Yes, sir.

The CHAIRMAN. That represents water, does it not?

Mr. COOLEY. Yes; in a sense. I suppose it would be called water, of course; but that raises another question in my mind that is very interesting, indeed.

Suppose you try to induce some public gentleman, some citizen, to buy a bond, so that you could get some fraction of the cost of your property that you are engaged in, and he is not satisfied that it is a good investment. He will not pay you par for the bond. He will not pay you more than 85 or 90 per cent for it. Now, you take a share of stock, or 10 shares of stock, and pin that stock to the bond certificate. That is the bait that catches him; and you have sold the bond, whereas you would not have had a chance to sell it without it.

Now, to what extent is that legitimate?

The CHAIRMAN. Does that alter the fact that that share of stock does not represent money that is actually invested in the property?

Mr. COOLEY. I will tell you what it is, in my opinion. It is a little more than the equivalent to dropping the price of the bond a few more points. If you were to ask 80 for the bond, and it did not attract him, you might drop that to 75, and it would not tempt him; you might even drop it to 65, and you would not tempt him. Now, you leave it at 80, say—the first proposition—and you attach this bait to it, and it will go at 80.

Now, if what I have said is true, then that water that you are speaking of is worth the difference between 80 and 60 or 65 or 70, or whatever the lowest figure was that he declined. It is worth that in actual money.

Mr. WARREN. It is what you have to pay to get the money; is it not?

Mr. COOLEY. Yes. I am just simply citing this as an illustration. I have not thought of it in just that way before, sir, but it is just something that flashes through my mind.

The CHAIRMAN. But the person who holds that share of stock that is pinned to the bond would like to have returns on that share of stock.

Mr. COOLEY. Yes; he would.

The CHAIRMAN. And that, in turn, is based upon a dollar that has not been invested in the property.

Mr. COOLEY. Precisely; precisely. That is, for every thousand-dollar bond that you have put on that property, if you have to sell it for \$850, there is \$150 that has got to be provided for in some other way. Now, if you are going to put that into a floating debt and amortize it through a period of years, you are going to put it in there one way or the other. It has got to go somewhere. Otherwise, you are not going to build your property.

Right there comes this question of water again. If you can get \$850 with one, two, or three shares of water, whereas, without water, you can not get more than \$600 or \$700 for that certificate, has not water some value—a value equaling the difference between \$850 and, say, \$700 or \$600, or whatever it is?

I raise the question. I have not reached a conclusion in my own mind. I am arguing this thing now. It is a new proposition to me. It is a new angle. I am inclined to think it is logical. Maybe I will think differently to-morrow.

The CHAIRMAN. Perhaps you and I need not go into a debating society on that question.

Mr. COOLEY. My attitude is inclined to the research attitude. It is a proposition. It is something that may be or may not be true. I like to hold it up look at it and see whether it can be true. I think just for the moment and for the purposes I am citing it is true. Now, I may not think so to-morrow.

While we are speaking of this discount on bonds, I think we might as well dispose of another element, as it is closely connected with it in the public mind.

You will have gentlemen on the stand testifying who can give you the absolute inside facts; give you things that they gave me when I went to investigate it myself, and things which the public has the least possible conception of—namely, that with the very best security that you can produce, the very best security that you can offer, you have got to pay at least 5 per cent cost on getting your money. This money is costing you actual dollars, just the same as steel rails and ties and cars and everything else you buy. You have got to go into the market and buy that money, and you have got to pay 5 per cent on it. You do not need to take my word for that. I know that is true, but you can find it out directly from the gentlemen who are selling the money.

Now, you can not get the money in any other way. You can not get somebody to give you a steel rail if he is engaged in manufacturing or handling steel rails. You can not get anybody to give you cars; you can not get anybody to give you money.

Now, you are the gentlemen who are building this property, remember, and that is what you have to pay when you go into the money market for money; and don't fail to make a point on it when you render your opinion, because you have a chance to do a very great good to the public. I do not like to pay it. I am opposed to paying it. I am on the side of the public when it comes to paying 5 per cent for the money. So I am on the side of the public when I have to pay \$16 for shoes; and, in fact, I would like to get everything for nothing. There is no question about my attitude on that score. [Laughter.] But you can not do it, gentlemen. You can not get these things for nothing; and they are actual, bona fide costs, and they have not anything to do with discounts, except that when the matter comes before the public for the sale of these securities, this cost of money is really merged in with the discount, covered up. The total discount is so large. That includes the cost of money. As a matter of fact, it is an absolute separate thing, and the public does not know it. I did not know it myself three years ago.

That is enough for that, I should guess, because you will have a chance to supplement that and get it much more fully.

Now, we have spoken of the cost of money, and we have spoken of the cost of promotion, and it remains in this connection to speak of promoters' profits. The public will not concede for a moment that there should be any promoters' profit. The word is a stench in the nostrils of the public. The very word "promoter" does not sound well; but it is there, gentlemen. You are all promoters in your projects. If you are not, you hire somebody who is, and you pay him a rattling big salary, and the better the promoter the bigger the salary you will have to pay him. You are not going into this thing for your health. You are going into it for profit, and you are going to pay a promoter's profit; and if you will bring anybody in here who

has had experience in promoting public-utilities properties, or any other kind of property, you will find that 5 per cent is a mighty low figure for it. Five per cent of the cost of the property is a mighty low figure.

Now, you do not have to take my word for that, because I have never promoted—well, yes, I have promoted one or two properties, and they have turned out to be gambles, and they are written off. They were written off a long time ago, and my regret now is that I have not more recently lost them, so that I could write them off in my income-tax account.

Commissioner GADSDEN. That is the reason that you do not want to act as a promoter much longer, I suppose.

Mr. COOLEY. Well, I was not good as a promoter. It was not my forte.

You certainly will have appearing before you men who have done these things, and it is not necessary for you to take my word for it. You will get directly from these men the same thing that I have gotten from them, and it is better that it come to you direct.

Not only has that to do with the development costs of the projects, but the cost of money and the promoters' profits.

Now, comes the interest during construction. Curiously enough, we have lumped that, and we say it takes three years to build a property, and money is spent uniformly, starting at zero. At the end of three years it is all spent. We will say that we had all of the money for half of the time, or half of the money for all of the time, at 6 per cent. So we take 3 times 6 per cent—18 per cent—and divide it by 2, and call the interest 9 per cent, and we stick that on. Now, that is not right, but we have been doing it for years; we have been doing it for 20 or 30 years.

It is not right, because that is not the way the money is borrowed. It does not conform to the facts. If you can get hold of the books and the historical records, you do not have to make any overhead at all; you can go right through the books and dig out what the actual interest was and find the thing you should use; but if you can not get the books, you have to make some estimate of it in the best way you know how.

When you start a year's building program, you either have to have the whole money at the beginning of the year, or at the beginning of each quarter, if you can make that kind of a deal with a banker who is furnishing you the money. We will say it is quarterly. Now, he will let you have it at 6 per cent, say, and give you 2 per cent on all balances, or whatever it is, so that when you get through the year it may have averaged 5 per cent. But when you have run that over the construction period, which includes for the land at least a year, or four years—including three years for building the property—you will find that that interest, instead of being 9 per cent, is over 11 per cent. Yet you did not know it until it was investigated, in accordance with the actual facts which have been found to exist. It was the same kind of an investigation that developed the fact that a half of 1 per cent or 1 per cent for taxes did not anywhere near reach the result. It should have been 2 per cent. They did not know it.

So I say, gentlemen, this is a research problem. When we used to apply 9 per cent and one-half of 1 per cent, and certain of these

other per cents to these things, I was an expert; but to-day we do not do it that way, and I am a student. I found out that we do not have to do it that way. We have to do it some other way. So that explains why I am no longer an expert. [Laughter.]

Now, when you have this property all done—I will try to finish this property before 1 o'clock, this physical property, I mean—you have got the tracks laid and the power houses built and the cars bought, and you have at the very end bought stores and supplies, and you have already arranged for your quarters, or you may have to rent quarters at the outset, or you may build your own building; and if you rent it, the rent becomes an operating expense; and if you build it, it is a part of the property, and it becomes a capital charge. Then the very last thing you do before you turn a wheel is to provide what we call a working capital. That is another red rag.

Now, of course, it does not need any great amount of sense to know that when you start to do a thing in which you buy materials and hire help, you have, at the end of the week or at the end of the month, to have a pay roll. That is going to be the working capital for that pay roll. That takes care of the pay roll, and that working capital, gentlemen, is that fund of money that lies idle in the bank, subject to check all the time. It is the amount of money that the company has found necessary in order to do its business from day to day. And I take that from the books; I do not estimate that. I just take that. We go back over a period of years, and we find what has been the average amount required to do business, and we put it in. Yet everybody comes along and takes it out. I say "everybody"; I mean the public. "Why should we pay for that?" That is cash, but it is idle money, and if it does not bear interest in the banks, it earns an interest through the rate.

Now, we are ready to start the wheels going. We have a perfectly inanimate property. It has not a particle of life. It is a structure that merely exists; and if you do not put it into use it would not be worth a dollar, except for scrap, and whatever value it may have in the future depends on what you can make it earn.

That raises the question of the costs that come along in connection with the operating of the railroad, which themselves become elements in the rate that you are going to fix.

Mr. WARREN. Before you get to that, Prof. Cooley, could you state any general figure or limits for a figure of those overhead items?

Mr. COOLEY. Yes; I can do that, and you may be surprised when I get through with you. You will be very much surprised.

What the gentleman means by this overhead is something over and above the actual money that you invested for materials and labor in the physical property. That is what he means.

You buy materials, and you buy labor, and you put those costs into the physical property; and it is what we call the base figure. Now, how much in addition to that base figure must you add for organization, legal expenses, engineering, interest on the cost of money, and for this thing and for that thing—all of which are overheads, and which can not be figured directly? They can not be inventoried.

These overheads will vary not only with the size of the property, but with the location of the property. Out in my little town, or in any little town, the overhead might be very small—10 or 12 per cent,

perhaps; maybe not over 8 or 10 per cent, depending upon conditions. In the city of New York, they might be 60 per cent. I heard a gentleman, a very prominent engineer, testify before Judge Tayler that, under certain conditions in the city of New York, the overheads were 60 per cent. I did not know it. I was just as much surprised as Judge Tayler was.

Now, let us see how that figures out.

Certain items of overheads to-day, instead of being put on overhead, are put inside in connection with the item. A certain percentage for overheads comes in with grading, a certain percentage for track laying, and a certain percentage for this thing and that thing. It comes into unit costs, and disappears as a part of unit costs. That is happening, and some engineers are very adroit, enough so that they can conceal a very large proportion of the overhead, and nobody will ever know. That is being done. That is the way they keep their overheads down. But if you will be honest about it and put your overheads where they belong—and by “overheads” I mean the contingency items, the engineering item, the legal item, the organization item, the interest during course of construction—and not yet consider cost of developing the project, costs of money, or promoters’ profit, but leaving those out, they amount to $12\frac{1}{2}$ per cent. They run from 15 to 18 per cent up to 25 or 30 per cent. Now, if you add all of these other things, they actually come up to between 30 and 40 per cent, and in certain instances, as high as 50 or 60 per cent, as this gentleman testified to in the city of New York.

The CHAIRMAN. If it is convenient, Professor, we will stop now to meet at 2 o’clock.

Mr. COOLEY. Yes; I have given you everything up to the point of operating expenses.

Commissioner MEEKER. How much are we worth now?

Mr. COOLEY. You may find out that you may not have made a cent, and you will be lucky to escape without going into your pockets.

Commissioner MEEKER. I was afraid that we were going to be a bankrupt concern, and I was going to protest. [Laughter.]

(Whereupon, at 1 o’clock p. m., a recess was taken until 2 o’clock p. m.)

AFTER RECESS.

Appearance: Mr. C. J. Joyce, Philadelphia, Pa., representing T. E. Mitten.

MR. MORTIMER E. COOLEY—Resumed.

The CHAIRMAN. You may proceed, Mr. Warren.

Mr. WARREN. I want to read a telegram which was received in response to our request of the vice president of the San Diego Co., to come on and appear before the commission. He could not come, but has sent this telegram which explains the reason and also throws some light on the situation. It is dated San Diego, Calif., July 15:

JOHN H. PARDEE, *President,*
950 Munsey Building, Washington D. C.

Utterly impossible for me representing our company be in Washington. We indorse every word your statement before committee reported by Associated

Press this morning. Speaking for San Diego Electric Railway Co., we have been preparing our case for 18 months and same has been partially submitted to State railroad commission. Our accounts show that December 31, 1918, our investment amounted to \$5,060,000 and company had deficit of \$1,240,000. At the same time depreciation had accrued to amount of \$1,664,000 but not 1 per cent of this accrued depreciation is on hand for replacements due to inadequate fares. This day there have been presented to me memoranda showing that for first 6 months 1919, total operating revenue has been \$525,700 with operating expenses including interest, taxes, etc., amounting to \$568,200 which leave actual operating deficit of \$42,500. This deficit is exclusive of depreciation for first 6 months 1919, which depreciation amounts to \$155,200, making total deficit of \$197,600 for the 6-months period. The expenditures during those 6 months do not include adequate maintenance because we have not got the money. The company is in default of bond interest for 1918 and 1919, and no dividend has been paid since 1914. Unless we receive large measure of relief from railroad commission, this company can not continue operating this road and public must suffer. It offers absolutely no satisfactory security for anyone to advance money to it in its present condition. Present holders of its securities decline to further contribute to an institution which has no credit and to which public itself will not contribute, with absolutely no assurance of return of principal or even interest on same.

The burdens of this company have been increased and accentuated by war conditions. Wages of all employees have been largely increased. Cost of supplies have advanced anywhere from 50 per cent to 300 per cent. Actual average increased cost between 1914 and December, 1918, amounts to 134 per cent, but the fare still remains at 5 cents. Street railways and other public utilities of the country have been for years the vehicle of misstatement, and vituperation of cheap politicians for their own political advancement until the public mind has been so poisoned it will not accept the truth of their condition to-day. As a consequence there is in many States hesitance and in some cases refusal to grant railway companies proper and just relief. Power to increase fares consistent with increased wages should go together. The arbitrary increase of wages through War Board without power increase fares has brought some companies to verge of bankruptcy. Electric street-railways of United States need prompt relief and if that relief can not be had through State institutions, Congress should take action to establish Federal control. The control should be a permanent Federal board so constituted as to be beyond or outside any political interference, control or even suggestion.

W. CLAYTON,
Vice President, San Diego Electric Railway Co.

Mr. WARREN. Now, Mr. Cooley, that telegram speaks of depreciation in connection with those operating expenses. What can you tell us about depreciation as a proper charge against income in addition to the regular cash operating expenses?

Mr. COOLEY. The subject of depreciation is probably as little understood as any subject connected with a public utility. It is almost impossible, apparently, for even well-informed men to get a clear conception of what is meant by depreciation in connection with a utility company, particularly with an electric street-railway property. I think the best way to present it is like this:

When we build—when you gentlemen build—a street-railroad property, all the elements are brand new, the ties and rails and cars, power house, engines, dynamos, overhead wire, everything is new, brand new; it stands in what we call a 100 per cent condition. Some of these elements are long-lived, some are short-lived. An engine may last 30 years, a tie may last 6, 8, or 10 years; a car may last in between somewhere. But the elements have different lengths of lives and it becomes necessary to replace them at different intervals.

After the property has been running for 10 or 12 years, say, or 15 years, it will be made up of items some of which are brand new, some

of which are partly worn out, and some of which are all worn out. After it has been running through 25 to 30 years—the length of the longest-lived element—it will be made up of elements of all conditions as the length of remaining life.

Thus, when you make an appraisal, you examine these different elements and you find some standing at 100 per cent, some standing at 75 per cent, some standing at 50 per cent, and some standing at zero. But when you have taken the weighted average of all these elements, you find they stand somewhere between 80 and 90 per cent of the original 100. In other words, there has been, say, 15 per cent of accumulated wear, or of wear that has come into the elements, so that the 100 per cent condition is represented by an 85 per cent condition.

Now here comes the point that is so hard to understand. It makes no difference if the property lasts a thousand years, the per cent condition in which it remains after it has come through its longest cycle remains practically constant, say 85 per cent. You can not raise that 85 per cent, if that is the mean, because in order to raise it, you have got to throw away property before it is worn out. A tie will not be entirely worn out, a car may not be worn out, and if you replace them too soon, you will bring up the average condition at the expense of property still usable.

Likewise, you can not let that property drop very much below, because then it becomes dangerous to operate and it does not render the service for which it is designed.

Then the conclusion is this: That the 85 per cent condition that I am speaking of for all practical purposes throughout all the life, whether 10 years or 30 years or 1,000 years, is the 100 per cent operating condition.

Now you can not have that 85 per cent except you buy it with 100 per cent. Thus you must allow the 100 per cent as the basis for rate making and not the 85 per cent. You can not have the 85 except you pay 100 for it. It is the cost of the 85 per cent condition which is the maximum practical operating condition. All this money that comes into the treasury of the railroad comes through a property that necessarily exists at an 85 per cent condition.

Now that is one kind of a depreciation. You might call that a fixed depreciation. And the proper way, if you are not going to allow the 100 per cent as an earning, is to allow out of earnings something in the nature of a sinking fund. You must contribute to this sinking fund through an annuity taken out of earnings which in a given time—say the life of the franchise—will bring you back the difference between 85 and 100 per cent. So whether you allow the 100 per cent or allow the annuity, its equivalent, it comes out of earnings.

Now the second depreciation—

Mr. WARREN. May I ask one question there? Suppose instead of a determinate franchise you had an indeterminate franchise, would you allow 15 per cent?

Mr. COOLEY. There would be difficulty in an indeterminate franchise to determine what the annuity would be.

Mr. WARREN. Because if a property was expected to last forever you would never make up the 15 per cent?

Mr. COOLEY. Not at all; and so I say we should always figure our rate of return on what it costs to get that property in its working condition.

Now with regard to this second depreciation item. In order to keep this property in the 85 per cent condition you have got to renew elements as they wear out. Cars, engines, boilers, rails, ties—they all have to be renewed from time to time as they wear out; and you have to put aside a sum of money to do that work, to make those renewals. A car may wear out or it may become obsolete even when it is in splendid working condition, as was the case in Detroit with the old single-truck cars. They stood at a physical condition close onto 80 per cent and yet every last one of them was scrapped because the public demanded double-truck cars and they had to throw them away.

Now this second fund that I speak of, to keep the property in the 85 per cent condition, has likewise to come out of earnings, and it is a much bigger amount than people think. And I could give you a demonstration of that. If you will take all the elements of the physical property which can wear out, and take the length of life of those different elements and perform the arithmetical computations, you will find that the average life of the elements that can wear out is, say, 12, 13, or 14 years—something of that sort, the composite life. So that it is necessary to put into this fund for renewal somewhere around 6, 7, or 8 per cent of the items that wear out.

Now it happens that the items that wear out are only about one-third or perhaps one-quarter of the total cost of the property. So when you spread this 6, 7, or 8 per cent over the total cost, it means that anywhere from $1\frac{1}{2}$, 2, or $2\frac{1}{2}$ per cent of the total cost of the property has got to go into this renewal fund or what is ordinarily spoken of as a depreciation fund, being a different fund from the one I first spoke of, namely, the one that makes up the difference between the 85 and 100 per cent.

Now what is $1\frac{1}{2}$ or 2 per cent on the total cost of the property? It may be a quarter of the bond interest; it just adds that much to the earnings which that road has got to make, and it must be just as religiously saved as bond interest, because if you do not save it and put it back into the property the integrity of the property is not maintained. So I say it is a religious duty to put into this depreciation fund as much money as is necessary to maintain the integrity of the property, which as I have illustrated it is around about 85 per cent of the original 100 per cent of the elements all being new. So that is my idea, gentlemen, of this whole question of depreciation.

Mr. WARREN. Now, Prof. Cooley, will you say just a word about the different methods of valuation, and then I will be through.

Mr. COOLEY. Yes, that comes very aptly right at this point. In talking about the valuation we are asked, What do you mean by valuation? Well, of course we have the historical valuation or the book valuation or the cost of reproduction method or the cost of reproduction less depreciation, the cost of reproduction less depreciation being frequently spoken of as the present value, a very misleading term.

Now, what I have just said about depreciation distinguishes the difference between the cost of reproduction and the cost of reproduction less depreciation, because the cost of reproduction less depreciation

tion is about 85 per cent, so I do not need to say anything more about that. Now the historical method, of course, does not need any discussion, because that means just what it says; likewise the book account. Those are the different ones.

Now, we do not have the historical value. If the property is old and the books have been lost, we do not have the book value. So we attempt to get at them in the only practical way that we seem to know anything about, namely, by estimating the cost of reproducing the property under normal conditions or under the conditions as nearly as may be which existed at the time the property was built with respect to the purchasing power of a dollar.

Mr. WARREN. I think that is all I want to ask, Mr. Chairman.

Commissioner GADSDEN. Will you follow up there and say a few words on the subject of obsolescence?

Mr. COOLEY. Yes. Take the electric street-railway art as an example and compare it, if you like, with the art of gas making. Now, the electric street-railway art represents an art which has been changing very, very rapidly in the last quarter of a century, whereas the gas-making art, which has existed for 75 or 100 years or more, has been changing, but the changes have been relatively slight. In other words, the gas-making art in comparison with the electric is a fixed art and there is not much obsolescence. Take the street railway and take its history. We all of us remember horse-car days and remember how the horse-car was changed into the cable road in San Francisco, Grand Rapids, Chicago, and elsewhere. And then came the electric road back in the late eighties and early nineties. And perhaps as good a practical illustration as any I can give is the situation in Grand Rapids, Mich. Succeeding the horse-car days they built there a cable road up those hills. I do not think they operated that cable road more than a year—perhaps not as long as that, but a very short time—when they recognized the handwriting on the wall, and they then scrapped that whole cable road and converted it into an electric road—the boldest and bravest bit of financing I have ever known anything about. Now, there was a case of obsolescence. The property had only been running a year or so; it was practically new; and yet it was scrapped for obsolescence, and so far as the duct and the cable machinery was concerned, it was pretty nearly 100 per cent obsolescent.

The CHAIRMAN. Did the company stand that loss or did they amortize part of it?

Mr. COOLEY. I have never heard. I have often wondered.

Commissioner GADSDEN. How ought it to be treated economically?

Mr. COOLEY. Treated economically. Of course they went into it in the best faith in the world and with the knowledge and consent of everyone; and economically or morally, at least, they should be permitted to earn on that investment until they could wipe it out; that is, they should be permitted to earn enough so they could gradually wipe out that tremendous investment. And so far as my experience with commissions goes, they are permitted to earn it and wipe it out.

Take another case right there in Michigan: The Commonwealth Power Co. built a high-transmission line from one of the dams up the Muskegan, I think it is, and carried the current into Grand Rapids and the southern towns. They went into the market for copper. They thought copper was going up—everybody thought copper was

going up—and they paid 30 or 32 cents, say, for copper, and bought enough for the whole job so as to have it on hand, thinking thereby to profit by the market. But before they got that line erected copper dropped to 16 or 18 cents, and there was 13 or 14 cents. What would we do with it? We were valuing the property under the Michigan Railroad Commission; and the commission had a special hearing on it, and the facts were related to them; and they said, "Gentlemen, we will allow them 30 cents for the copper—what they paid for it. They invested their money honestly, and it was simply one of the turns nobody could anticipate." And it went into the capital, or was set up in a fund to be amortized.

Commissioner MEEKER. But if the amount paid had been subject to the suspicion that good judgment had not been used in making the purchase would the amount have been allowed just the same?

Mr. COOLEY. Well, you say good judgment. In my—

Commissioner MEEKER. What the courts usually term ordinary business judgment.

Mr. COOLEY. Well, I do not know just where we would draw the line there as to what would be good judgment.

Commissioner MEEKER. There is a difference of principle there that I want to get at.

Mr. COOLEY. I would say this: If the contract had been carelessly made or they had not properly looked into the question and just simply had gone in without any foresight and done it, they should stand for it. But the investigation showed it was honestly done.

Now, one of the best illustrations of this obsolescence was those street cars in Detroit which I cited a moment ago—splendid cars. They maintained them out of operating expenses up to this very high condition; and they were maintained in that condition up to the day they were scrapped and double-truck cars took their place.

Now, take the electric art, going back to the early days when we had the little high-speed engine driving our belted dynamo; it was not long; it was in 1893, at the time of the World's Fair, when we had the direct unit still, a small unit. It was not very long until we began to build big dynamos and hook them onto slow-moving engines; and in a few years—say, along toward 1900, I do not remember the date—came the steam turbine and small units, first used as excitors for the dynamos driven by steam engines, a few kilowatts capacity, now thrown up to 60,000 kilowatts capacity with the steam turbine; and all that since 1890, say. Now, that shows a succession of scrapping of machinery and street-car material through obsolescence.

Mr. WARREN. Is the cost of establishing the business a capital charge or an operating charge?

Mr. COOLEY. I think it has up to very recently been considered a capital charge.

Mr. WARREN. In that case it enters into the valuation and I want to ask you about it.

Mr. COOLEY. Yes; but I think the modern tendency is to carry the cost of establishing the business as a floating debt and amortize it. In other words, it partakes more of the nature of an operating expense in these days than it did a few years ago.

Mr. WARREN. How substantial is it in an ordinary case?

Mr. COOLEY. It is a very, very substantial item. It is so substantial that in a great many cases it runs from 25 to 35 per cent of the cost of the physical property. It is so big an item as that, so it is very, very important. I know one property in Milwaukee, for instance; it is the heating property owned by the Milwaukee Electric Light & Railway Co. They have kept the books separate for that business. When I made the first analysis of it, in 1907, they had 10 or 15 years of life and they must now have 25 or 30 years' life. They were plotting the curves for those earnings and for operating expenses. It looked at the time as if it would take 10 or 15 years for the earnings from that company to reach the operating expenses. That is, a period of 25 years, we will say, has been required to make the business what we call a going concern—by that meaning a concern in which the earnings of the company, the income, is sufficient to meet all of the outgoes.

So I would emphasize the necessity of taking into consideration the cost of establishing the business. It has several names. That, I think, is the clearest name. I would emphasize it particularly as the tendency to-day seems to be to treat it as an operating expense.

Mr. WARREN. How would you define it, Prof. Cooley?

Mr. COOLEY. Well, I think the Wisconsin definition is perhaps the best or most generally accepted. It is really a summation, if you like, of the early deficits—that is, a sum of losses that the company encounters up to the time its income meets its outgoes; and it is very hard to obtain it, because companies until recent years have not appreciated the necessity of so keeping their books that the items of loss can be actually taken out. So it is a very difficult thing to sustain in dollars and cents. But in the future it probably will be a well-known factor; no doubt about it at all, because they are keeping their books now so as to tell us what it is.

Mr. WARREN. But as relates to income and operating expense, it is something like the interest during construction, if you were valuing the property.

Mr. COOLEY. Yes; interest during construction period. Now I might say just a word on that. Now, for example, when before luncheon we had completed our physical structure and were ready to start the property into operation, we had just secured stores and supplies and working capital to enable us to begin to turn the wheels. We start in and it may take six months or a year before we get that property settled so that the machinery all works well and gets the wrinkles ironed out. It is the same kind of treatment of the property that we have to make with a locomotive. When we buy it and put it on a steam railroad, we have to run it a few weeks under easy conditions, we will say, so as to work out the troubles—precisely the same thing you have to do on board a battleship after it comes from the yard: It has to be run and tuned up. All those things have to be done before your property is in final shape for operation. Now, that all costs money; and when you start to earn, you do not earn anything the first day or the day before the first day; it is zero. Then as you begin to operate your business the earnings begin to mount.

Meantime you are carrying along as expenses all these daily operating expenses of whatever character, including taxes and interest on the cost and—well, perhaps you would not start any sinking fund or depreciation fund at that time, but if you did that would

also come in. And of course the earnings are almost nothing, we will say, the first week or two or three weeks, and the operating expenses are very large. Now the difference or that deficiency is one element of this so-called cost of establishing the business. And when you aggregate those losses for a period of years up to the time the gross earnings line crosses the gross operating expense line, and when you sum up all of those losses, you have the cost of establishing the business as it is ordinarily understood. Now it is frequently argued, and apparently with a good deal of sense, that the greater these early losses the more valuable your property, because with every loss you are adding to the cost of the property, if it goes into capital. But that is fallacious, it seems to me, because the utility when it is built is built to meet a public necessity. Now the public knows that that property is not going to pay to start with, if they know anything about it at all; and that property has been built and accepted by the public with full knowledge that it has got to grow into its business and with a full knowledge that these early losses are to be there; therefore they are a proper cost of the property.

Mr. WARREN. Now I want to ask just one other question, if you are familiar with current prices of labor and material to-day, and I presume you are, in connection with your valuations—

Mr. COOLEY. Yes.

Mr. WARREN. What should you say would be a proper percentage either of income or of operating expense—I should say preferably of income—to allow for maintenance, which I understand covers maintenance of track and roadbed and maintenance of equipment?

Mr. COOLEY. Answering it in a perfectly general way, first—I had occasion to investigate the relative expense of building such properties as electric-railway and gas properties under prewar conditions and under early war conditions and under late war conditions. I suppose in the last six or eight months we have made a dozen or 15 different valuations with different units of cost.

Now, the fact appears to be that if we were to build properties within the last year, say, or quite recently, we would have to pay fully 50 per cent more to secure the same property, I think 50 per cent is a very conservative estimate, and that of course is for the cost of the property. It is due to the advance in labor and materials and other elements which come in. Now, when you come to operate that property of course there are the platform expenses of the motorman and conductor—and all the labor has advanced tremendously; I think in some instances, doubled, perhaps, and with a request for a trebling.

The importance of that labor element alone—that wage element alone—almost is conclusive answer; because under prewar conditions, as I recall the figures, about 50 per cent of the gross operating expenses were required to pay the labor, the platform expenses and the other help that entered into it. This whole operating cost excluding taxes was about one-half the gross income. So one-quarter of the gross income was labor and wages. Now, suppose you double them; that 25 per cent becomes 50 per cent. Suppose you treble them; see where you go. You have simply absorbed all the difference between the original 50 per cent that you had to pay for taxes, depreciation fund and interest on the capital, on the funded debt and the other things that had to be paid out of the income over and above the cost of operation per se. Now you double the cost of operation, you have

wiped out everything. This telegram that was just read is very pertinent and makes it clear. I do not know that I could say very much—it does not seem as if I could say very much, because it is so patent, it is so apparent—but right there, if I may just say something showing how the public gets things wrong end to, we have been making arguments right along, all of us, that we must have greater wages in order to meet this increased high cost of living. That is the argument. But you will correct me, Dr. Meeker, if I am wrong—I understand that is your field—but as I see it, it is putting the cart before the horse, for I believe it is an accepted fact that the cost of everything we have to buy is very largely the cost of wages. I have heard it stated that from 50 to 75 per cent of the cost of every article we buy in the world is the cost of labor that went into that article. Now if that is true, and I have no reason to doubt it, it means that as we advance the price of labor we advance the cost of living.

Mr. WARREN. Now, Prof. Cooley, you stated that the depreciation which ought to be taken care of was about 2 per cent.

Mr. COOLEY. I said from $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent on the cost of the property.

Mr. WARREN. On the entire cost of the property?

Mr. COOLEY. Yes.

Mr. WARREN. Supposing that is set aside or provided for—if the company is fortunate enough to have money to do it—how much more under present prices of labor and material should you say ought to be allowed for maintenance—I mean for current maintenance?

Mr. COOLEY. I do not think I answered the first question you asked completely, now that you ask me this second question. I started to speak generally and to say that the company should be allowed to earn in direct proportion to the increased costs of building the property. If the property costs 50 per cent more to-day than it did 5 or 10 years ago, the company should be permitted to earn 50 per cent more. I speak of that generally.

Mr. WARREN. In other words, the maintenance cost would have a very direct relation to the cost of building a new property?

Mr. COOLEY. Oh, everything has gone up. I do not think 50 per cent is enough. I think it is very conservative. It seems to be borne out in certain instances, as I observe the reports. The old fare of $4\frac{1}{2}$ and 5 cents has been supplanted by 6-cent fares. That is about a 50 per cent increase. The old 5-cent fare in Boston has gone up to 8 cents, I believe. That is more than 50 per cent.

Mr. WARREN. Up to 10 cents.

Mr. COOLEY. Then that is more than 50 per cent.

The CHAIRMAN. When you speak of the company earning more on account of the high cost are you speaking of the gross earnings or net earnings?

Mr. COOLEY. Gross. That brings up the question whether we should use present-day costs or before the war; in other words, whether we should use the cost of reproduction to-day or the historical cost. I think that is answered splendidly by comparing the purchasing power of a dollar to-day with what it was when the property was built. I have frequently said that our dollar of to-day was the 50-cent piece prior to the war. So if you are going to build a property to-day you will have to build it so far as purchasing power is concerned out of 50-cent pieces.

Mr. WARREN. That has been the experience of the Boston Elevated. They have just been double what they were in the past.

Mr. COOLEY. Well, as I understand it, the purchasing power of the dollar is about 50 cents. So, if a property were valued before the war at about around \$100,000,000, it would to-day be valued around \$200,000,000; if you are allowed to earn the same percentage on the \$200,000,000, of course it would double the income, we will say.

Commissioner MEEKER. But the answer is not quite clear to me, however. If you are arriving at a fair valuation on which earnings are to be allowed, would you depend upon the cost of reproduction to-day or would you take the historical cost, or what would you do?

Mr. COOLEY. I do not think it would make any difference, if you will keep in mind the purchasing power of the dollar and let your earnings vary with the purchasing power of the dollar; that is what I mean. For example—

Commissioner MEEKER. It seems to me the difference between \$100,000,000 and \$200,000,000 is quite considerable.

Mr. COOLEY. True, it is quite considerable; but the \$200,000,000 is precisely equal to the \$100,000,000 as we are taking it. They are different figures but they are not different quantities.

Commissioner MEEKER. That is, the company should be allowed to earn upon the value of the property valued upon the cost of reproducing under current prices?

Mr. COOLEY. Yes.

Commissioner MEEKER. Does that exactly jibe with your statement made this forenoon that the original cost should be taken as the basis? For example, the tunnel through the Detroit River which eventually became the tunnel under the Detroit River; there was about 100 per cent, was it, of contingency, or 50 per cent?

Mr. COOLEY. Very large.

Commissioner MEEKER. Very large?

Mr. COOLEY. Yes, I have forgotten which.

Commissioner MEEKER. \$1,000,000, which was actually spent, and that should not be disregarded in valuing the property to-day, but the original cost should be taken into account.

Mr. COOLEY. That is all right. Suppose we do take in the original cost, and I think fundamentally that is of course right, there can not be any question about that. You should take in what your investment is; that is, what the proper investment is, I mean. Now, prior to the war, that investment was permitted to earn, say 5 per cent, and we got 5 per cent and we were satisfied, and we were able to do everything we wanted with it—everything that we had to do. Now, to-day what would that 5 per cent do? It would do only half the things we have to do. So if you are going to hang onto the original cost that we have been discussing, the investment cost, you have to allow twice the income from it or else you have got to double the value and take the same rate of per cent, both being precisely equal.

Mr. WARREN. But, Prof. Cooley, that raises the question, I think—or the commissioner's question raises the other question—of whether the return on the capital ought to be double because of the reduced purchasing power of the dollar or the higher cost of living; leaving that to one side for the moment, because many of our street railways are trying to earn their operating expenses and fixed charges, this

would be true, would it not, that if the cost of construction—that is only a yardstick by which to measure——

Mr. COOLEY. Yes.

Mr. WARREN. If the cost of construction to-day would be twice what it was when the road was built, then the operating expenses, apart from the return on the capital, would be twice to-day, roughly, what they would have been previously.

Mr. COOLEY. Yes; I think so.

Mr. WARREN. That is all I want to ask. I am very much obliged to you, Prof. Cooley—unless the commission has some questions.

Commissioner MEEKER. The commission is a little bit afraid of this question of going into the fair valuation of property. I do not want to dwell upon that any more than is absolutely necessary, but first of all I would like to know what is the pamphlet from which you have been quoting.

Mr. COOLEY. I am very grateful to you for asking that question, because I wanted the permission of the commission to send copies of this pamphlet to them. It is a pamphlet that I read five or six years ago before the electrical engineers, also before the Western Society of Engineers, and it is entitled "Factors Determining a Reasonable Charge for Public Utility Service." There would have to be a few changes made to meet the new conditions that we are encountering now, but this at the time it was written represented my best knowledge, and I have used it in refreshing my mind as to topics, and I would like to send enough so each member of the commission can have a copy. It is very short—you can read it in 40 minutes.

Commissioner MEEKER. I was about to ask if I might obtain a copy.

Mr. COOLEY. Yes; I will be very happy to do it.

Commissioner MEEKER. How should improvements and extensions which are made out of earnings be treated?

Mr. COOLEY. If they are made out of earnings—the answer has to be a double-barreled one—if they are made out of earnings which ordinarily would go into the pockets of the people who have their money invested in the property, it is equivalent to new capital. If, on the other hand, the earnings have been very large, far in excess of what would be regarded to-day as proper earnings, then I do not think it ought to go into capital except there be some legal phases which would require it.

Commissioner MEEKER. You think——

Mr. COOLEY. I hope I make that clear. Say an 8 per cent earning is permissible and all right, and suppose the earnings have been 20 per cent—if in the first case you have got your 8 per cent and have taken some part of that 8 per cent and invested it in new property, it belongs to capital.

Commissioner MEEKER. Some part of a reasonable return?

Mr. COOLEY. Yes; surely.

Commissioner MEEKER. But anything in excess of what might be regarded as a reasonable return, you think that should not be counted as a part of the original investment upon which the company is entitled to earn?

Mr. COOLEY. No; I would call that investment by the public, except there be some legal requirement which of course might control. I do not know what——

Commissioner GADSDEN. Let me ask a question right there. Take a railway—I think it is entirely a hypothetical question as applicable to street railroads, because in my judgment none of them ever made a fair return on any proper valuation—but do you mean to say that a railroad which had a franchise with the city and a fixed fare of 5 cents—suppose such a railroad made, we will say, 12 per cent net return after operating expenses and fixed charges, amortization and depreciation—do you mean to say that 4 per cent of that, say, ought to go back into the property?

Mr. COOLEY. No; not necessarily.

Commissioner GADSDEN. Or 3 per cent, or any proportion of it? What I mean is if we had a legal right to charge 5 cents, whatever the net return may be, does not that belong to the stockholders?

Mr. COOLEY. Well, I do not mean to say that at all, because there is a legal phase I refer to.

Commissioner GADSDEN. But I wanted to distinguish that point.

Mr. COOLEY. I was answering in the broad way. Of course, the real answer as to what is the proper earning is the amount which is necessary to induce capital to come into the business. That may be 8, 10, or maybe 12 per cent; it may be one thing in one town and another thing in another town. I just answered your question, Dr. Meeker, broadly, without regard to its being a question which might have different answers in different localities and under different conditions.

Commissioner MEEKER. We do not want to confine our attention too much to hypothetical questions. You stated, however, that anything above a reasonable return upon investment, if turned back into the property, might be regarded as an investment by the public and therefore would not constitute property value upon which the company was entitled to earn in the future.

Mr. COOLEY. Yes; that was my answer to the general question, namely, and we at once put in 8 per cent as an example of a reasonable rate—

Commissioner MEEKER. As a point to argue from?

Mr. COOLEY. Yes.

Commissioner MEEKER. But as I understand it, Mr. Gadsden has made the proposition that the company is entitled to everything that it does earn.

Mr. COOLEY. There comes the legal thing. I made that point, too, that Mr. Gadsden made, namely, there is the legal obligation, if you please, or the legal element which permits the company to have everything it earns regardless of how much it is.

Commissioner MEEKER. Everything it earns so long as the fare is fixed, and the fare being the public's idea of regulating the income of the company?

Mr. COOLEY. Yes.

Commissioner MEEKER. So if a company earns 50 per cent on its investment, it is entitled to the 50 per cent and can do with it as it chooses?

Mr. COOLEY. Yes; and go into court and get it. That is what I meant, but—

Commissioner MEEKER. So that must be taken account of in valuing the property to-day?

Mr. COOLEY. Yes.

Commissioner MEEKER. In case there be such returns, such investment in improvements and extensions to property out of earnings so obtained, such investments are bona fide, the property of the stockholders of the company and the company is entitled to earn upon them; is that correct?

Mr. COOLEY. Well—

Commissioner MEEKER. All investments made out of earnings as the conditions have been laid down, the company is entitled to as part of its property and that property must be valued in determining the property upon which the company is entitled to earn in the future?

Mr. COOLEY. Yes.

Commissioner MEEKER. Do you know of any cases where improvements and new equipment and even extensions have been made under the guise of operating expenses?

Mr. COOLEY. Oh, yes; any number of them. Not perhaps within a year or two, but I think one of the most notable examples of that is the Michigan Central Railroad. For years and years it paid its stockholders 4, 5, or 6 per cent, whatever it was, and all the rest of that property went into second track and new station buildings and new property.

Commissioner MEEKER. I had in mind street-railway properties.

Mr. COOLEY. Well, I do not think at this moment of any street-railroad property; but there is a very interesting outcome or sequel to that Michigan Central case, if I may dwell upon it for a moment. They had a very, very valuable property with absolutely no additions to capital for a great many years, under Mr. Ledyard, the president. Then the Michigan Central and the Lake Shore and all these roads were merged into the New York Central lines, and they had to finance them in order to build this Grand Central Terminal in New York; and then it becomes necessary to dig out all these sums of money that had been hidden and expended from earnings and put them into capital. Now I may not have stated that precisely in accordance with the facts, but that is the idea in my own mind—that lots of the new construction was built out of earnings and paid for by the public, if you like.

Commissioner MEEKER. You would call such new construction and new equipment as made out of earnings, would you?

Mr. COOLEY. Yes; I call it in that case made out of earnings, surely, because they did not add a dollar to capital for all those years.

Commissioner MEEKER. Made out of gross earnings but not out of net?

Mr. COOLEY. I do not know just how it was divided, but it was made out of their earnings because they did not add a dollar of capital for a great many years, and yet they double-tracked their entire system and built very elaborate new stations with gardens and everything of that sort.

Commissioner MEEKER. Do you know of any such instances where street-railway companies have made improvements and extensions in the same manner?

Mr. COOLEY. No; I can not identify any instances at this moment.

Commissioner MEEKER. You see, I am trying to differentiate between improvements made out of net earnings and improvements made under the guise of operating expenses.

Mr. COOLEY. Yes; I know.

Commissioner MEEKER. It seems to me there is a distinction there which should be drawn. You have stated, have you not, that improvements made out of net earnings, out of earnings that might have been paid as dividends under the legal contract entered into by municipalities, is bona fide the property of the company?

Mr. COOLEY. Yes.

Commissioner MEEKER. Would you state also that improvements made out of gross earnings under the guise of operating expenses would be entitled to the same treatment even though the company may have paid no more than a reasonable dividend on the stock?

Mr. COOLEY. Well, let me put my answer this way, if I may: If the net earnings have been sufficient to give what we are speaking of as a fair return, meaning by that as much of a return as would be necessary to induce capital to come into the business, then I should think all this new property built out of gross earnings should belong to the public who contributed the money for it, if it could be done legally. Now, does that answer your question?

Commissioner MEEKER. Well, will you restate it?

Mr. COOLEY. Let me restate it. Assuming that the net earnings have been sufficient to pay a fair return—a return which would induce capital to come into the property—and then that with those net earnings there had been expended out of gross earnings sums of money for building new property not affecting the net earnings except that had they not been spent out of gross earnings they would have gone into net earnings and increased the same beyond the figure required to secure the investment of money in the property—now, I say under those conditions and speaking from the moral point of view, I believe that property built out of gross earnings should belong to the public. It should not belong to capital.

Commissioner MEEKER. How could the public gain possession?

Mr. COOLEY. They could not, as a matter of fact, I suppose.

Commissioner GADSDEN. May I ask another question right there? Are you still of that opinion, if that railroad, we will say the Michigan Central, was charging a rate at that time by law?

Mr. COOLEY. Yes; it was.

Commissioner GADSDEN. In other words, if the commission should authorize them, if the rate was $2\frac{1}{2}$ cents per mile for passenger travel, say, and they had made not only what you call a fair return upon the investment, but this surplus, do you think that surplus under a legal rate fixed by the commission belongs to the public and not to the stockholders?

Mr. COOLEY. No; not at all. In the Michigan Central case the public had not anything to do with it. It was a question between the Michigan Central and its stockholders. The stockholders got 4 per cent when, if they had not built all this property, they would have got 8 or 10 per cent.

Commissioner GADSDEN. Is not that the distinction that I am trying to draw, that if the public through a commission has laid down a legal rate, then is not the stockholder entitled to the return under that rate, whatever it is?

Mr. COOLEY. Absolutely, as I see it.

Commissioner GADSDEN. Until the commission changes it.

Mr. COOLEY. Absolutely; he is entitled to it. That is a different question from the one Commissioner Meeker asked.

Commissioner MEEKER. Will you elucidate the difference? It is not clear to me.

Mr. COOLEY. Well, you are asking a hypothetical question which brought in a question of a moral return, as I took it—that is, a fair return—not a legal return but a fair return. And the assumption was, as I got the question, that the net earnings had been sufficient to pay a fair return—a return which would induce capital to come into the business. That was the first assumption. Now, that is perhaps all the company should be permitted to earn. If, in addition to that, it did earn enough so that it could build property extensions—new property—that property, I said, might properly belong to the public or at least not enter into the capital account.

The CHAIRMAN. Let me give you a practical illustration.

Mr. COOLEY. Yes.

The CHAIRMAN. In the Eastern Advanced Rate case, tried two years ago, known as the Fifteen Per Cent case, President Rea, of the Pennsylvania Railroad, testified that during the past 10 years that road had expended \$350,000,000 in new property taken from earnings and that during all of that time the stockholders had received their regular dividends. In your judgment, should the \$350,000,000 taken out of earnings in that way be permitted to be capitalized?

Mr. COOLEY. Well, I think that perhaps brings up the sharp distinction—

The CHAIRMAN. That is the distinction, is it not?

Mr. COOLEY. Yes. In one case there is the legal right and the other was the moral right. As you set up this question it is the legal right, as I understand, to include it in the capital account.

The CHAIRMAN. That is the question I presented to you.

Mr. COOLEY. And the other question presented the moral right. Now, my idea is this: That public utilities in the future should only be permitted to earn just enough to induce capital to come into the property—

The CHAIRMAN. What is your answer to the \$350,000,000 proposition?

Mr. COOLEY. That, I would say, is precisely the same case as Commissioner Gadsden spoke about: That the company was permitted to earn that legally and therefore it belonged in the property.

The CHAIRMAN. That it ought to be capitalized?

Mr. COOLEY. Yes.

Mr. WARREN. That is on the theory it was earned at a rate which was legally charged?

Mr. COOLEY. Yes. I hope I have made myself clear.

Commissioner MEEKER. I intended to ask my question in such a way that it would be a practical question. I do not want to ask questions up in the air. I think I have your point clearly now. Does it boil down to about this: That for the past, whatever has been done, we must accept it, but in the future street-railway companies and other utilities will be permitted to earn a reasonable return upon actual investment and anything over and above that will be taken in part or in whole by the public?

Mr. COOLEY. That is my own view of it, regardless of any legal aspects. I firmly believe that a public utility should be permitted to earn enough to make it able to serve the public in the way it wants to be served and to bring the investor a sufficient amount to satisfy him and enable him to do all the things he has to do and, being a public utility, I should not want them to earn any more than that. Now, that is my own view. Of course, there comes the legal question as to the right, and that is another matter.

Mr. WARREN. Do you know of any street railway which falls either in the class of the Pennsylvania Railroad or the Michigan Central Railroad?

Mr. COOLEY. Not a single case.

Mr. WARREN. Or even within long-distance telephone reach of it?

Mr. COOLEY. No. We have been talking about a purely hypothetical case all the time when we are speaking of the electric street railroad. It is a peculiar case, in that it has not yet become a stable proposition, although it is 30 years old; and I do not know of any electric-railroad property which approaches a fair return.

The CHAIRMAN. I think it is very interesting to realize, however, that in the hearings before the Senate committee last December, the railway executives declared it to be their view that, as to all future construction paid out of earnings, there should not be any capitalization; so it at least represents a very marked change in their belief.

Mr. COOLEY. Yes. I gathered from my talk with public-utility men that they would be tickled to death with conditions that would permit them to earn a fair return on their investment.

Commissioner MEEKER. I would like to ask, in regard to forms of securities—you spoke this forenoon of bonds and stocks and of any other way of raising money—is there any other way?

Mr. COOLEY. I was trying to convey the idea without being too specific as to the character of the securities, having in mind this—that the senior securities, the highest grade securities, would be those that were protected by a first mortgage. Now there might be another issuance of securities which would be protected by a second mortgage, or it may be in the form of preferred stock or common stock, but I do not care to differentiate as between these different securities any further than to say that after you have issued your bonds protected by a mortgage, some other form of security must come along to enable you to get the rest of the money, and it might be stock.

Commissioner MEEKER. Just one other question. You spoke of the cost of money and certain other charges that came in the overhead. Those charges would all be lumped by the economist, would they, under the hazard of the enterprise? The fixed return upon capital investment is spoken of as interest. Anything in excess of that is paid for the insurance against the risk of the enterprise. Is that what you had in mind in speaking of the cost of money?

Mr. COOLEY. No, not that. I had in mind that money has a regular market value. Of course, I may not be speaking correctly, because it all comes to me second-handed, or as hearsay, but I take it for granted that you will have testimony that will set forth precisely the facts. But my idea is this—that you have to go into the money market and buy this money. Now the expense of that money is a real expense, because the bond house will send out and have its own investigation made of that property. That will cost a considerable sum. And it

will cost perhaps a good part of the 5 per cent before they get through with that investigation. Then they must provide in this cost of money for fluctuations or market conditions which no one can foresee. Money may go up or it may go down, but they have constantly to furnish the utility with the money it needs for construction purposes, and there is a risk involved there.

Commissioner MEEKER. I see what you mean, I think. It is the risk or hazard of the enterprise. That is all.

Mr. COOLEY. It is partly that.

Commissioner SWEET. You evidently have thought a good deal about the present street-railroad situation.

Mr. COOLEY. Yes.

Commissioner SWEET. And regard it as very precarious.

Mr. COOLEY. Very.

Commissioner SWEET. And you have also, from what you have said here to us, come to a very acute recognition of the difficulty of bringing the public up to the point of understanding correctly this situation and various features connected with it.

Mr. COOLEY. Yes, that is correct.

Commissioner SWEET. If I understand you right, this pamphlet you have referred to was written four or five years ago.

Mr. COOLEY. Yes.

Commissioner SWEET. And that treated of the subject you have been discussing here with us.

Mr. COOLEY. Yes.

Commissioner SWEET. The proper method of arriving at cost and what should be allowed, and so forth.

Mr. COOLEY. Yes; and written with special reference to informing the public.

Commissioner SWEET. I suppose that others, experts and students, have presented similar arguments and explanations to the public?

Mr. COOLEY. Undoubtedly.

Commissioner SWEET. And yet the public is not informed?

Mr. COOLEY. It is not informed, absolutely not informed.

Commissioner SWEET. Now don't you think, Prof. Cooley, that the situation with regard to the street-railroad companies is so acute that it is practically hopeless for us to attempt or for anybody to attempt now to educate the public and bring it up to the point of doing what is right and advisable in this matter in time to meet the requirements of the situation?

Mr. COOLEY. I think it will take almost a generation to educate the public.

Commissioner SWEET. Then we have to find some other solution.

Mr. COOLEY. Precisely; you have to do it right away, to-morrow if you can, because it is very, very critical.

Commissioner SWEET. You are not personally, directly interested in street railroads, or are you?

Mr. COOLEY. Not at all.

Commissioner SWEET. You are simply employed by them to do the work—

Mr. COOLEY. I am not even employed by them in this case.

Commissioner SWEET. Very well, I think you are a very good man for us to talk to on this subject a little bit. What would you recom-

mend in view of the situation just exactly as it is to be done to help out this situation?

Mr. COOLEY. I would recommend that the request of the street-railroad companies be granted, that they be given an increased fare sufficient first to meet their operating expenses and all the things they have to meet to prevent them going into the hands of a receiver, to fix them up so they can keep on serving the public and maintain their property intact, as far as you can. You can not give them enough at this time to do all the things which will have to be done in the next 5 or 10 years. That will give ample time to make investigation of the actual needs of the different companies. You can satisfy yourself in 10 years as to what they actually need, but you can not satisfy it yourself. You can know that they have all got to have—not a 4½ or 5 cent fare, but at least 50 per cent more, if not greater than that.

Commissioner SWEET. Where the fares have been increased, as they have been in Boston and other parts of Massachusetts, and I think in some other parts of the country, has there not been more or less of a falling off in patronage?

Mr. COOLEY. Yes, I think so; to some extent I know it has.

Commissioner SWEET. Is it your opinion that raising fares alone would be a cure for this trouble that now exists?

Mr. COOLEY. No, I do not believe it would.

Commissioner SWEET. What more, then, would you recommend?

Mr. COOLEY. It would be in the nature of a palliative.

Commissioner SWEET. Then what would be your further recommendation? Let me help you a little bit. It has been suggested here that what is needed in this industry is bringing it into a better relation and greater correspondence with other legitimate industries, and that is, introducing an element of elasticity into the possible returns, which is absolutely impossible if you have a regulated and definite fare fixed by law. Is that true?

Mr. COOLEY. I think that is true, and I have in mind one or two instances which I think go to prove it. This was a case of a company that had a very large surplus. After it had done everything it had to do, it still had money, and they put it into a surplus. It had so large a surplus that it was able to finance all its new undertakings and when they were put on their feet and had reached an earning condition the money was returned to this surplus.

Now, that company has been, you may say, perfectly independent during this war. It has been able to meet every requirement made on it. It has been a flywheel. And I think one of the safest and one of the sanest things to do is to permit every public utility to have something which we may call a surge tank which you can draw out of and put back into, so you can meet these various fluctuating conditions.

Commissioner SWEET. Would that involve necessarily in your opinion a fluctuating in the fares that could be charged?

Mr. COOLEY. Well, I did not have in mind that so much, but it might possibly work out in that form before you got through with it. It might be the Cleveland plan; for example, a sliding-scale business. That still I consider in the experimental stage.

Commissioner SWEET. If that were to be adopted and this greater elasticity introduced into the earning side of the business, do you think the service-at-cost plan would fill the bill?

Mr. COOLEY. No; I do not believe it would; because, if I am correctly informed, the Cleveland situation is not satisfactory in that not enough money has been allowed to maintain that property in the condition which it ought to be maintained. It has not been able to do the things it ought to do for the public.

Commissioner SWEET. Well, is not that a defect in carrying out the plan?

Mr. COOLEY. Yes.

Commissioner SWEET. In that particular case?

Mr. COOLEY. Yes.

Commissioner SWEET. Rather than a defect in the plan itself?

Mr. COOLEY. Well, perhaps so, but the surge tank is too small there, which I think is necessary to that.

Commissioner SWEET. Service at cost might very properly be arranged on the basis of taking care of the repairs and deterioration expenses and everything else, might it not?

Mr. COOLEY. Yes.

Commissioner SWEET. And should, of course?

Mr. COOLEY. Yes, sir.

Commissioner SWEET. That should be done?

Mr. COOLEY. Yes, sir.

Commissioner SWEET. And at the same time provide for a proper return to the investors?

Mr. COOLEY. Yes, sir.

Commissioner SWEET. And such a return as would induce further investment?

Mr. COOLEY. Yes, sir.

Commissioner SWEET. And still at the same time be absolutely just to the public?

Mr. COOLEY. Yes, sir. I think Judge Tayler's idea was a beautiful idea; and it has worked out much better, I guess, than a great many people expected it would, but it needs some perfecting, as I see it.

Commissioner SWEET. Can you suggest any better plan?

Mr. COOLEY. Well, I was thinking of what seems to me to be a better plan.

Commissioner SWEET. Well, tell me what you think the objections to the plan are. That would be the best way to do it.

Mr. COOLEY. The main objection to the plan is that it is not elastic enough. It does not permit them to do things as quickly as they ought to do them. Now, I may be misinformed in regard to that. I have not looked into the matter within a year or two years, but it is not big enough. The plan is not big enough. It is held in too small units. They have not got enough money to work with. I think the Chicago plan is more practicable.

Commissioner SWEET. What is that?

Mr. COOLEY. The straight 5-cent fare has been in existence there for years, and, after all the expenses of all kinds have been paid, the city and the company have shared profits in the proportion of 55 per cent to the city and 45 per cent to the company, and the last I heard, four or five years ago, the city had accumulated, since 1906 or 1907, some twenty-odd million dollars, and put it into a fund

which it has accumulated, and which would enable them in time to buy the property outright and have municipal ownership.

Commissioner SWEET. Do you understand at the present time those companies are making money?

Mr. COOLEY. I doubt it. I very much doubt it.

Commissioner BEALL. I can answer that, Mr. Commissioner. Both systems there are running at a deficit.

Commissioner SWEET. They are losing money?

Mr. COOLEY. Yes.

Commissioner BEALL. Very fast.

Commissioner SWEET. Why do you advocate a plan in a crisis like this has proven to be, which has not permitted it to do its work?

Mr. COOLEY. Well, that Chicago plan will work all right if you let them increase the fare. Of course, the Chicago plan is very practical.

Commissioner SWEET. But you have already answered that by saying that an increase of fare does not always increase the results on account of loss of patronage sometimes.

Mr. COOLEY. Well, that is true, too; but I do not believe anybody could say just how much loss there is. The automobile has had a tremendous effect. Jitneys have had a tremendous effect. I do not believe you could differentiate at this time the effect of the increase of the fare from 5 to 6 or 7 cents.

Commissioner SWEET. Well, street-railway service is something that the public must have; must it not?

Mr. COOLEY. Yes.

Commissioner SWEET. And they must pay what it costs?

Mr. COOLEY. Yes.

Commissioner SWEET. Now, to induce the public to depart from the old nickel idea and pay what this service is fairly worth it must be demonstrated to the public in some way that the nickel idea is wrong?

Mr. COOLEY. Yes.

Commissioner SWEET. And that in order to have the benefit of this service, something has got to be done?

Mr. COOLEY. Yes.

Commissioner SWEET. Now it has been stated here that there are only two things practical that can be done. One is to have this service performed by municipalities——

Mr. COOLEY. Yes.

Commissioner SWEET (continuing). And municipal ownership——

Mr. COOLEY. Yes.

Commissioner SWEET (continuing). And the other is by having some form of relief——

Mr. COOLEY. Yes.

Commissioner SWEET (continuing). Brought to the private corporations in charge of it.

Mr. COOLEY. Yes.

Commissioner SWEET. Now objections have been made to municipal ownership.

Mr. COOLEY. Yes.

Commissioner SWEET. The question that we are trying to get at now is what form of relief is most practicable?

Mr. COOLEY. Yes.

Commissioner SWEET. What can be done and done quickly?

Mr. COOLEY. Yes.

Commissioner SWEET. To bring the public to such a frame of mind. Because there is some psychology in this thing, is there not?

Mr. COOLEY. Yes.

Commissioner SWEET. It is quite a psychological question?

Mr. COOLEY. Yes.

Commissioner SWEET. So as to enable the public to get the benefit of the best way for the public?

Mr. COOLEY. Yes.

Commissioner SWEET. As well as for the corporations themselves?

Mr. COOLEY. Yes. I think I can answer your question more intelligently now. Considering the fact that the Cleveland plan has been running for 15 or 20 years, and that the public already knows a great deal about it, and it is on a sliding scale—the fare being proportioned to whatever is necessary to run the property—that would seem to be the plan which would win the favor of the public more speedily than any other plan that I know of. Now, whether it is a better plan than the zone system that is being advocated to-day, and which has been in use in Europe, of course I do not suppose anybody could say. I think the zone system is likely to be fairer; that is, the man who rides 10 miles pays twice as much as the man who rides 5 miles. I think that has all the elements of fairness in it, but I am afraid it is going to meet with considerable opposition, although it may be the fairest thing, because the public in this country does not know anything about it, and they are opposed to it, and it would not get there quickly enough, however much merit it may have over the Cleveland plan, for example. I think the Cleveland plan is a more practicable one to meet this existing situation; but even that does not meet it to-day, because these railroads have got to have help to-morrow, and the only practical way that I know of getting help to them is to give them the increased fare which they are asking for. Now, that does not need to go indefinitely. It can go for—

Commissioner BEALL. May I break in there a minute, Mr. Sweet?

Commissioner SWEET. Just a minute. Right there, let me ask you this: If I understand you right, that would merely be a sort of sedative to keep the patient alive until some real curative medicine could be administered?

Mr. COOLEY. Precisely. That increased fare would keep them going until you could find out what they ought to have—what ought to be done for the patient to cure it.

Commissioner BEALL. That is what I wanted to find out.

Mr. COOLEY. Yes.

Commissioner BEALL. You can not raise money?

Mr. COOLEY. No; you can not. You are quite right.

Commissioner SWEET. As a permanent matter, it would not fill the bill?

Mr. COOLEY. Not at all; not in my judgment. This is a very sick patient, gentleman, as I see it, and it has to be something more than doctoring a pimple on the skin. You have to get at the constitution of the patient.

Commissioner SWEET. And what you have been telling us about—about the methods of arriving at the cost—would be too intricate altogether?

Mr. COOLEY. Yes.

Commissioner SWEET. For a case of this kind, just now?

Mr. COOLEY. It does not seem to me to have any particular bearing for the immediate needs.

Commissioner SWEET. No.

Mr. COOLEY. It will have a very great bearing, however, when you come to treating the patient.

Commissioner SWEET. Yes.

Mr. COOLEY. So as to cure him.

Commissioner SWEET. There is one thing that I want to ask you in connection with that Grand Rapids case that you spoke of. Your memory is a little bit faulty in one particular. The original street-railway company there did not build a cable line, but another company built that, because the company that was first operating there refused to obey a request or mandate of the common council with regard to building a line up the hill. Subsequently, the original company bought out the cable company, and my recollection is that it was at a very much lower price than the actual cost of the cable line. In other words, that those who went into that lost money.

Mr. COOLEY. Yes.

Commissioner SWEET. Now, who should stand that loss?

Mr. COOLEY. Well, I guess those chaps who accepted a lower price for it.

Commissioner SWEET. But the old company that bought out the cable company got the benefit of the lower price. In figuring the cost, would you do it at what they paid for it?

Mr. COOLEY. Yes.

Commissioner SWEET. Or at what it cost?

Mr. COOLEY. I would figure it on what they paid for it.

Commissioner SWEET. Does not this system of yours involve a great many qualities that might be considered to be historical? Is not that one right there?

Mr. COOLEY. Yes.

Commissioner SWEET. Where the same property, if what you stated was correct, and the cable line had been built by the company then in existence. As you put it to us in your direct testimony, that would be a legitimate part of the cost that should be figured into a valuation of the property?

Mr. COOLEY. Yes.

Commissioner SWEET. Now, when I tell you that it was built by somebody else, and they bought it at a reduced valuation—

Mr. COOLEY. Yes.

Commissioner SWEET (continuing). Then you say that what they paid for it should be figured in?

Mr. COOLEY. Yes.

Commissioner SWEET. In other words, in figuring precisely the same property, of the street-railway property at Grand Rapids today, on the basis of your original statement, as I understand it, it would be one amount, and on the basis of your present statement it would be another amount; is not that so?

Mr. COOLEY. Yes.

Commissioner SWEET. How do you reconcile that inconsistency?

Mr. COOLEY. Perhaps I can not, but here is what I had in mind, namely, that there was no practical way of paying those chaps who lost their money. As I understand it, the chaps who sold out went out of the railway business entirely.

Commissioner SWEET. Yes, they did.

Mr. COOLEY. How are you going to pay them? They have not made their money serving the public. It was a gambling loss.

Commissioner SWEET. And yet the two systems of figuring would bring different results?

Mr. COOLEY. Morally, that money was wisely spent; that is, honestly spent, at least, and the public was required to support the whole investment; but there was no practical way of paying those chaps who gambled and got out of the field that I can see.

Commissioner SWEET. We have had some testimony here with regard to a western city, in which a valuation was made by experts representing the corporation, a private corporation, and also the municipality, and that they got together without very much difficulty on the valuation.

Mr. COOLEY. Yes.

Commissioner SWEET. That has led me to think perhaps a similar process might be adopted without much difficulty in other cities, and without, perhaps, going into all of the details and niceties, and without trying to educate the public especially on the subject. If the representatives of the city—their experts—agreed with the experts of the company, I dare say the cities would generally acquiesce, would they not, in the decision, and say, "Well, that is all right"?

Mr. COOLEY. One would think so, really, but it does not seem to work out that way. Detroit is a beautiful example of that. The city's experts and the company's experts have all agreed, but they have not any solution.

Commissioner SWEET. Well, that involves other questions.

Mr. COOLEY. Yes; it involves another question.

Commissioner SWEET. Yes; several of them.

Mr. COOLEY. Yes; several of them.

Commissioner SWEET. I think that is all.

Mr. COOLEY. Let me go right back again. I was thinking of the case in Grand Rapids there, about those chaps who lost their money. Of course, if they stayed in the company, and their investment was still there for the public, I think I would have given them a return on the whole of it, and I think I would, anyhow, if you could give it to them; but I do not see any practical way of doing it.

Commissioner SWEET. Prof. Cooley, there are other ways in which the companies might be helped, besides increasing the fare, like the refund of taxes, are there not?

Mr. COOLEY. Certainly.

Commissioner SWEET. And especially the matter of paving between the tracks?

Mr. COOLEY. Yes, sir.

Commissioner SWEET. Is not that very heavy on some of the companies?

Mr. COOLEY. That is very heavy in some cities. It really corresponds to a franchise payment. It amounts practically to an an-

annual franchise tax. That is, the city contracts to let the railroad company go through the street, providing they will keep either the whole street paved, or a part of it.

Commissioner SWEET. Do you know what the origin of that custom was which required the companies to pave between the tracks and a little outside?

Mr. COOLEY. I don't think I do.

Commissioner SWEET. Does it go back to the horse-car days?

Mr. COOLEY. It goes back to the horse-car days; yes, sir.

Commissioner SWEET. That was because the horses that drew the cars were supposed to wear out that part of the street?

Mr. COOLEY. Yes, sir.

Commissioner SWEET. Do you see any inequality in that as between the different elements in the community?

Mr. COOLEY. I do not know as I clearly understand the "elements in the community."

Commissioner SWEET. If the patrons of the street-railway company are required to pay enough fares to meet all expenses, including this paving—

Mr. COOLEY. Yes?

Commissioner SWEET (continuing). Then that part of the community would be the only part of the community that would actually furnish the money to do the paving, would it not, under the present system?

Mr. COOLEY. Yes.

Commissioner SWEET. Now, are there not many people in the community who have automobiles and other means of conveyance who very seldom if ever use street railways?

Mr. COOLEY. Yes.

Commissioner SWEET. And would they not be exempt from that taxation?

Mr. COOLEY. Well, they are wearing out the pavement.

Commissioner SWEET. And they get just as much use of it; in fact, more.

Mr. COOLEY. Yes.

Commissioner SWEET. Than those who ride in the cars?

Mr. COOLEY. Yes.

Commissioner SWEET. And yet they do not pay any part of the tax under the present system?

Mr. COOLEY. I do not believe I could analyze that question sufficiently to answer you.

Commissioner SWEET. If the paving is paid for out of the nickels that come in, and they do not furnish any of the nickels, they do not furnish any part of it?

Mr. COOLEY. Not to the company, certainly, but they pay another tax—the automobile tax.

Commissioner SWEET. Yes; but that has nothing to do with this particular paving between the tracks and just outside?

Mr. COOLEY. Yes, sir; I see your point.

Commissioner SWEET. Now, is there any good reason why the street-railway companies should be required to do that paving?

Mr. COOLEY. No; I do not think so.

Commissioner SWEET. Is there any good purpose served by it?

Mr. COOLEY. No; I do not think so.

Commissioner SWEET. Do you think it is an unjust burden upon them?

Mr. COOLEY. Yes; it is to-day; it surely is to-day, and in the final adjustment you might excuse them from that, taking account of the difference—the saving in the fare.

Commissioner SWEET. Do you think it would be more equitable if spread over the community in the same way that other paving repairs are?

Mr. COOLEY. Yes; I believe it would.

Commissioner SWEET. How about the taxation of its physical properties? Do you think there would be any justice, or do you think the public would stand for remitting taxation under present conditions?

Mr. COOLEY. I do not know, sir; I do not know, sir. I do not know whether it would stand for the remitting of anything to-day. I do not know how far we can go toward remitting taxes.

Commissioner SWEET. Well, if the public had to walk instead of ride for a week or two, or a month or so, they would reconsider some of these matters, maybe, would they not?

Mr. COOLEY. I think that is quite true. It is, however, one way of helping in the present emergency to remit their taxes, for example.

Commissioner SWEET. It is just as important to reduce the costs—

Mr. COOLEY. Yes.

Commissioner SWEET (continuing). To reduce the burden of these companies—

Mr. COOLEY. Yes, sir.

Commissioner SWEET (continuing). As it is to increase their income, is it not?

Mr. COOLEY. Precisely.

Commissioner SWEET. The result is practically the same?

Mr. COOLEY. Precisely.

Mr. WARREN. It is even surer?

Mr. COOLEY. Yes.

Commissioner SWEET. Yes.

Mr. COOLEY. The companies are putting very materially the moneys required to keep the property. They are not making any renewals or replacements, but they are allowing the property to run down. It is a deferred maintenance. They are doing everything they can. They are even going too far in it. They are not rendering good service. Of course, they have simply got to do it. They can not help themselves. They have got to do it.

Commissioner SWEET. Somebody has to do it, and if the companies can not do it, then the public has to do it for itself?

Mr. COOLEY. The company has to do the very least it can do.

Commissioner SWEET. Yes, but there is a limit; is there not?

Mr. COOLEY. There is a limit, because they can let this maintenance go down to such a point as to be absolutely dangerous to the public.

Commissioner SWEET. Yes.

Mr. COOLEY. Yes. And they will have to stop there, surely.

Commissioner SWEET. The only recourse would be municipal ownership and operation, would it not?

Mr. COOLEY. Yes. Now, I have favored municipal ownership, not that I believe it to be successful, but I have been an advocate of municipal ownership for 5 or 10 years.

Commissioner SWEET. And operation?

Mr. COOLEY. And operation—the whole thing. I have advocated it strongly, but I do not believe it would be a success.

Commissioner SWEET. Why do you advocate a thing that you do not believe would be a success?

Mr. COOLEY. Simply because it is the quickest way to teach the public. I have worked for it. I have urged it. I have said, "Nobody can answer that question; nobody knows. Let us try it."

Commissioner SWEET. Then you think the way to make a boy better is to punish him?

Mr. COOLEY. No; I think it is a case of giving candy to the person who wants it until he gets the belly-ache. [Laughter].

Commissioner SWEET. What worse punishment could there be than that?

Mr. COOLEY. Well, that comes to the same thing; yes.

Commissioner SWEET. Then, you really do not believe in the efficacy of municipal ownership as a permanent proposition?

Mr. COOLEY. Theoretically, it is altogether better than private ownership. There is no question about that. Every analysis you make of a public-utility property, worked under ideal conditions, it shows a better thing for the public under municipal ownership; but when you go to put it into practice, I think it will go way the other way. I think it is a beautiful thing as an ideal, but absolutely a fruitless prospect from the practical point of view.

Commissioner SWEET. In the matter of the water supplies, municipal ownership has proven successful, has it not?

Mr. COOLEY. That is fine. There are other things there, because there is policing required. The public is willing to pay a price for such a thing as that. Their health is involved. It is the same way with the sewers. The public has got to do that. I think water supplies and sewers have to be run by municipalities.

Commissioner SWEET. Do you remember the fight we had in Grand Rapids against the corporation there?

Mr. COOLEY. Very distinctly. We had the same sort of trouble down in Ann Arbor.

Commissioner SWEET. So that, as far as private corporations engaged in water supplies are concerned, you think it is better to put them out of business?

Mr. COOLEY. I think so, although it is cheaper, when you buy it from a private corporation; I mean practically.

Commissioner SWEET. Yes. How about lighting? Would you put that on the same basis as water?

Mr. COOLEY. If there was the same controversy going on to-day in connection with lighting and electric power, lighting particularly, that is going on with respect to the electric street railways, I would favor municipal ownership until the people could find out whether it was a good thing or a bad thing to have municipal ownership. I would answer their question in a practical way.

Commissioner SWEET. Do you think the people of the country want municipal ownership of the street railways?

Mr. COOLEY. I do not think they do.

Commissioner SWEET. Then what is the use of advocating it?

Mr. COOLEY. Because I believe the people that do want it make so much noise that the other fellows are entirely smothered out.

Commissioner SWEET. That is all.

The CHAIRMAN. As a rule the fellow who makes the noise does not pay the taxes.

Mr. COOLEY. That is right. I thank you very much, gentlemen.

Mr. WARREN. I want to file, if I may, Mr. Chairman, without taking the time to read it, a memorandum of the valuation of electric-railway properties by A. Merritt Taylor, of Philadelphia, who, as the commission may know, is the president of the Philadelphia & West Chester Traction Co., a former president of the New Jersey & Hudson River Railway & Ferry Co., and who was transit commissioner of the city of Philadelphia, from July, 1912, to July, 1913; a director, department of city transit, city of Philadelphia, July, 1913, to January, 1915, in charge of location, design, and construction of municipal subways and elevated lines, and in charge of preparation of legislation required to enable the city of Philadelphia to finance and establish its municipal system; and more recently the manager of the division of passenger transportation and housing, United States Shipping Board, Emergency Fleet Corporation.

The memorandum thus referred to by Mr. Warren is as follows:

MEMORANDUM IN RE VALUATION OF ELECTRIC-RAILWAY PROPERTIES.

By A. MERRITT TAYLOR, Philadelphia.

An electric-railway company engaged in a legitimate constructive enterprise is entitled to charge rates for service which will yield a profitable return on the true cost of establishing and developing its property and business. Anything short of this means confiscation of money invested in public service.

In order that exact justice shall be accorded all parties at interest, and electric-railway property must be valued at the true legitimate cost of its establishment and development up to the date when the valuation is made.

If, in the early stages of development, the net results of operation produce a return which is short of the amount required to duly compensate the owners of capital invested in the property for its use during such period, and to provide for normal depreciation and obsolescence, such shortage plus accrued interest on accumulated portion of just return withheld from investors must necessarily be considered to be a part of the cost of the development of the property and its business and be included as an element of value.

If an electric-railway property be valued (as is proposed by impractical theorists) at its cost less depreciation and obsolescence, or at what would be the cost of reproducing it less depreciation and obsolescence, in instances where the net revenue has been insufficient to yield a return on the capital invested therein duly compensatory for the service performed and the risks assumed, or where the net revenue has been insufficient to provide for depreciation and obsolescence in addition to yielding a just return upon the capital—such valuation is unjustifiable and rates based thereon are confiscatory.

An electric-railway enterprise is entitled to charge such rates as are required to protect the capital legitimately invested therein and to yield to the owners of such capital a cumulative return which will adequately compensate them for its use, for the risks assumed and the service performed, and which are required to properly meet cumulative depreciation and obsolescence, to invite corporate initiative and to maintain the credit and ability of the enterprise to procure such additional capital as is required from time to time for the purpose of expanding its facilities for public service.

Capital will not be available for electric-railway requirements in States and municipalities where there be question as to whether electric-railway companies will be prevented by regulatory authorities from establishing rates required to yield and inviting cumulative return on the capital invested therein. This fact must be recognized and steps must be promptly taken to remove the grounds for reasonable doubt in the premises. Nothing short of a clear and common understanding of how valuations of electric-railway properties made

for rate-making purposes shall be arrived at, and of what elements must be regarded in the fixation of rates, will enable the electric-railway enterprise to raise the capital which is required to meet their obligations and expand their facilities as required for public service.

There is a serious and inherent risk which confronts every investor who invests in electric-railway constructive enterprises, namely, the risk that such enterprise will not yield a just return on the capital invested therein at any rate which its customers would be willing to pay for the service. In such instances where the rates are so high as to invoke the law of diminishing return, the management of the enterprise will necessarily have to decrease rates to such a basis as will yield the maximum net return, and the investor, in the absence of public assistance, will necessarily have to accept a lesser return on his capital unless through development of business the shortage can be made up and paid in later years.

Many electric-railway companies which are rendering essential service are now confronted with the fact that there is no rate of fare which will enable them to continue efficient operation of their properties and which will yield to them a return sufficient to meet the new level of operating and renewal costs resultant from the war, onerous conditions and charges imposed upon them by municipal, State, and Government authority, and to pay a just return on the capital invested in their properties. In such instances the credit of the electric-railway company is impaired; it can raise no money with which to provide the additional facilities which are required from time to time for the service of the public in a growing community; and the public must augment its net revenue in one way or another to an extent sufficient to enable it to maintain its credit and meet its just obligations, or be deprived of essential service. There are many electric railways which will be completely abandoned with the resultant incalculable loss to the communities which they serve unless their credit be promptly restored and maintained through public cooperation.

STATEMENT OF MR. W. D. GEORGE.

MR. WARREN. Mr. George, will you state your full name, please?

MR. GEORGE. William D. George.

MR. WARREN. William D. George?

MR. GEORGE. Yes, sir.

MR. WARREN. And your business ordinarily is that of—

MR. GEORGE. Real estate.

MR. WARREN. And you have taken on a new business recently; have you not?

MR. GEORGE. Yes, sir.

MR. WARREN. And what is that?

MR. GEORGE. I am one of the receivers of the Pittsburgh Railways Co.

MR. WARREN. How long have you been such receiver?

MR. GEORGE. Since December 21, 1918.

MR. WARREN. Was that when the road first went into a receivership?

MR. GEORGE. No; the road was in the hands of receivers since March or April—I believe it was in April, 1918.

MR. WARREN. And you are a successor to the receivers?

MR. GEORGE. I am successor to one of the original receivers.

MR. WARREN. You are not a street-railway man in the sense of having been connected with the street-railway business before you were appointed receiver?

MR. GEORGE. No.

MR. WARREN. Have you, since your appointment, made a pretty thorough study of the Pittsburgh Railways system situation?

MR. GEORGE. I have tried to.

Mr. WARREN. When you became receiver, what fares were being charged on the Pittsburgh Railways Co.?

Mr. GEORGE. They had two rates of fare in the city at that time. One was 5 cents, which prevailed in the congested area, the downtown district; and the other rate was 7 cents, which was in the outlying district; and the 7-cent fare also was charged for those passengers who rode from the downtown area out to the outlying district, where the 7-cent fare prevailed.

Mr. WARREN. Was it roughly two zones, like my hat, one zone here, covering the center of the city, a circle, and then going around the circle where the 7-cent fare applied?

Mr. GEORGE. Yes.

Mr. WARREN. And a ride anywhere in the outer zone was 7 cents?

Mr. GEORGE. Yes.

Mr. WARREN. Long or short?

Mr. GEORGE. Yes.

Mr. WARREN. But it also enabled them to come from the outer zone to the inner zone?

Mr. GEORGE. Yes.

Mr. WARREN. A ride in the inner zone was 5 cents?

Mr. GEORGE. Five cents.

Mr. WARREN. And I suppose that prior to that it was a 5-cent fare in the whole territory.

Mr. GEORGE. That is right.

Mr. WARREN. Also if a person went from this inner congested zone to the outer outlying zone, he paid 7 cents?

Mr. GEORGE. You are speaking now of the new fare?

Mr. WARREN. No; I mean the fare that you found in effect.

Mr. GEORGE. It was 7 cents from the center of the town out to the districts—the 7-cent district.

Mr. WARREN. Something like the zone system which was put in in Springfield, Mass., except that fare was the same for each zone, with a reduced rate less than the sum of the two for a ride from one zone to the other.

How long had that fare been in effect when you were appointed in December?

Mr. GEORGE. They made a change from the flat 5-cent fare in January of 1918. They first attempted a 6-cent cash fare and two tickets for 11 cents.

Mr. WARREN. That was a flat fare all over the whole territory?

Mr. GEORGE. Yes; but they found that that did not give them the revenue which they needed, and very shortly after it was put into effect they put the 5 and 7 cent fares into effect.

Mr. WARREN. Did the 6-cent fare, or two tickets for 11 cents, or 5½-cent ticket, give them some increased revenue?

Mr. GEORGE. Well, they did not get any increased revenue out of it. It was in effect a very short period of time, and during a period of time when the situation was very much disturbed, due to war conditions and other conditions, and they could not very well measure what the effect of that fare was, but they realized that they were not going to get from it the revenue which was necessary, and they immediately changed to the other system.

Mr. WARREN. Did the second system, of 5 and 7-cent fares, produce an increased income?

Mr. GEORGE. Yes; it has.

Mr. WARREN. A substantial increase?

Mr. GEORGE. Well, the receipts from the 5 and 7-cent fare, measured by the first 5 months of this year, as compared with the first 5 months of last year, have netted an increase of approximately 15 per cent. The average rate of fare under the 5-cent fare, of course, was approximately 5 cents, and there were some deviations in some of the outlying districts, which made it slightly less than that, but it was approximately 5 cents. The new rate of fare, when it was put into effect, made an average rate of fare of approximately 6.23 cents. The average rate of fare now as received has risen until it is 6.28 cents, which indicates that the riding habit in the 7-cent zone has a little better than maintained the average increase that it did in the 5-cent zone.

The CHAIRMAN. Is that because they are longer rides, and they must ride?

Mr. GEORGE. Well, that would no doubt have some effect on it. Of course, any conclusion which you draw from a mere statement of one factor must be a hasty conclusion and eliminate other factors. No doubt it must have some effect, but we were encouraged to believe that increased rates of fare were going to produce an increased revenue.

Commissioner BEALL. Your fare is now a 10-cent cash fare, is it not?

Mr. GEORGE. We have filed a new tariff with the public-service commission to become effective on the 1st of August, which provides a 10-cent cash fare, or 4 tickets for 30 cents and 8 tickets for 60 cents.

Mr. WARREN. That becomes effective on August 1?

Mr. GEORGE. August 1.

Mr. WARREN. Well, you are doing that because your income, even with this 15 per cent increase, is still insufficient?

Mr. GEORGE. Yes.

Mr. WARREN. Can you tell the commission approximately for any particular period how your income and operating expenses have run, and what balance there is, or deficit?

Mr. GEORGE. Early in the year we made a budget estimate for the year, and we estimated our income for the year at something over \$15,000,000. Our experience so far this year—six months—has very accurately approached the estimate, or rather, the estimate is a pretty accurate determination of what the rate of fare has actually earned. Now, at the time we made that estimate, we estimated also our operating expense for the year, and we figured that at the end of the year we would have an operating profit of about \$1,600,000, if we were able to induce the city to forego certain municipal charges which were assessed against us, which we felt we were not able to pay.

The CHAIRMAN. What was the amount of those charges?

Mr. GEORGE. Those charges were approximately \$300,000.

Commissioner BEALL. You were also behind in your power bills, were you not?

Mr. GEORGE. Well, we had prereceivership bills of about \$900,000, which were still outstanding, and which the court had authorized the receivers to pay at their discretion. We have made about 20

per cent of the payment on that \$900,000 of prereceivership bills. The power bill was in that, but this \$1,600,000 of operating revenue, of course, was after the power bills for the current were taken care of. Now, that \$1,600,000 did not take care of any of the extraordinary maintenance charges—any depreciation charge—nor did it take care of any of our fixed charges, or any interest charges of any nature at all. The fixed charges amount to about \$3,500,000 a year.

Commissioner GADSDEN. Three million five hundred thousand dollars?

Mr. GEORGE. Three million five hundred thousand dollars a year, about. So our situation is really very important at the present time, because we have in default something between \$2,500,000 and \$3,000,000 of fixed charges, and we owe the city a very—

Commissioner GADSDEN. Is that from the 1st of January, the current deficit?

Mr. GEORGE. What is that?

Commissioner GADSDEN. Is that the current deficit, from the 1st of January?

Mr. GEORGE. I am speaking about the defaults which have actually occurred, not the ones which are occurring.

Commissioner GADSDEN. Oh, yes.

Mr. GEORGE. But merely those defaults which have actually occurred up to the 1st of July.

Mr. WARREN. How much did you say they were, roughly?

Mr. GEORGE. Well, I said \$2,500,000 to \$3,000,000.

Mr. WARREN. That is interest?

Mr. GEORGE. That is interest and rentals.

Mr. WARREN. Yes; and you started to say that you were also in arrears in your payments to the city.

Mr. GEORGE. In our payments to the city for bridge tolls, for street cleaning, for franchise charges of one nature and another, and, in addition to that, the city is trying to force us into cooperating in certain changes which they are making, which would entail a realignment and change of grade of our tracks; and we have no money to meet that with. When we put the old rate of fare into effect, we did it without the sanction of the public-service commission, and we were compelled to issue rebate slips, and there is approximately \$1,300,000 of those rebate slips which are in the hands of the public. If the public-service commission refuses to allow the rate of fare which is now prevailing—

Mr. WARREN. That is the 5 and 7-cent fares?

Mr. GEORGE. The 5 and 7-cent fares—and if they are presented, why, the receivers are insolvent. [Laughter.]

Mr. WARREN. And nobody would take the job?

Commissioner GADSDEN. The only thing left would be to put the receivers in jail; would it not?

Mr. GEORGE. I don't know what would happen.

Mr. WARREN. Mr. George, you say that \$1,600,000, without the payment of any fixed charges, was your estimate for the year, at the 5 and 7-cent rates?

Mr. GEORGE. Yes.

Mr. WARREN. My attention was diverted for a minute. Did you say to the commission what you estimated the depreciation deduction should be on that \$1,600,000?

Mr. GEORGE. Well, it has been suggested that we should build 26 miles of new track each year, to keep the plant in perfect condition. We have 600 miles of track there, and 26 miles of track a year would cost, I imagine, \$60,000 to \$70,000 a mile; and you can imagine what that would be. Then, we have to buy new cars, and they say we should have about \$300,000 a year to invest in new equipment.

Commissioner SWEET. How many receivers are there?

Mr. GEORGE. Three.

Commissioner SWEET. Are they all rich men? [Laughter.]

Commissioner MEEKER. Do you have in mind the third set of receivers? [Laughter.]

Mr. GEORGE. I am really embarrassed to state this situation; but it is true, nevertheless.

Commissioner WEHLE. How many constituent companies are there in the present Pittsburgh Railways system?

Mr. GEORGE. Something over 60 underlying companies.

Commissioner WEHLE. When were the most recently formed companies in this group of units organized?

Mr. GEORGE. Well, the last consolidation which took place was the formation of the Pittsburgh Railways Co., which brought together three companies—the Consolidated Traction Co., the United Traction Co., and the Southern Traction Co. The Southern Traction Co.'s name was changed to the Pittsburgh Railways Co., and the other two companies were brought into the system under an operating agreement. The operating agreement is subject to cancellation notice of 90 days; and those notices have been served.

Commissioner WEHLE. Were any of these three companies operating a service to the outlying portions of Pittsburgh—excuse me, Mr. Warren.

Mr. WARREN. I only wanted to finish one line, and then have the commission take him up.

Commissioner WEHLE. You have some questions along a certain line which you wish to ask?

Mr. WARREN. Yes. I have not quite finished the only line that I had in mind asking him about, and which I wanted to find out about, because I do not have a chance to talk with him myself to any great extent.

As I understand it, Mr. George, you estimated \$1,600,000 above operation for the year. Was that above operation and taxes or above operation?

Mr. GEORGE. Well, that was above operation, with about 40 per cent of the taxes included. We have about a half million dollars of annual taxes, and about 60 per cent of them are local taxes and about 40 per cent of them are State and national taxes. That includes the State and national taxes, because we thought there was no chance of having any relief from that source, but we still had hopes that perhaps we could get the city to recognize the situation and relieve us of the local taxes.

Mr. WARREN. Then I understand that your experience for the first six months of the year with your 5 and 7-cent fares indicates that your estimate of \$1,600,000 is substantially correct?

Mr. GEORGE. Very, very close indeed to the actual.

Mr. WARREN. Assuming it to be correct, you would then have about \$300,000 for taxes or city charges, unless you are relieved of them, and

you, would have a depreciation that would exhaust those two items, that would exhaust the entire balance above the operating expense; is that correct?

Mr. GEORGE. Undoubtedly.

Mr. WARREN. Can you say a word about your wage situation? What rate are you paying now to the train men?

Mr. GEORGE. Forty-eight cents is the maximum-wage pay.

Mr. WARREN. Was that a War Labor Board award?

Mr. GEORGE. That was a War Labor Board award.

Mr. WARREN. Is there any movement with reference to its change or increase of that?

Mr. GEORGE. The men demanded 60 cents as a maximum wage, and the receivers refused, on the ground that they did not have the money to pay, and the men went on a strike. Then it was agreed that the matter should be left to the War Labor Board for arbitration; and the matter has been heard by the War Labor Board, but no decision has been rendered. A 60-cent rate of wages, if it is made effective, and a corresponding increase given to other employees of the company—

Mr. WARREN. And have they asked for a corresponding increase?

Mr. GEORGE. Yes; they will have to have it—would mean an additional expenditure of about \$2,000,000.

Mr. WARREN. Do you mean per annum or for six months?

Mr. GEORGE. For the year. It would cause us an increase of about \$2,000,000.

Mr. WARREN. For this current year?

Mr. GEORGE. Yes.

Mr. WARREN. For 12 months?

Mr. GEORGE. At the rate of \$2,000,000 a year.

Mr. WARREN. Or, in other words, another million dollars for this year on which the budget was \$1,600,000?

Mr. GEORGE. Yes.

Mr. WARREN. That would put you something over a million dollars in the hole?

Mr. GEORGE. Yes.

Mr. WARREN. Well, as a matter of fact, if you have that \$1,600,000 is it all committed in one way or another for existing liabilities or preceivership liabilities or extraordinary expenses; or do you expect to have some of it in cash at the end of the year?

Mr. GEORGE. Well, if we have any of it in cash it will be because we have refused to pay it out.

Mr. WARREN. Not because there are not liabilities on which you could pay it out?

Mr. GEORGE. Not because there are not claimants for it.

Mr. WARREN. You seem to have a number of specific charges, some of which sound a little unusual to me, although I thought I knew of a great many. Can you tell the commission what they are? You spoke of street cleaning. What does that mean?

Mr. GEORGE. Well, the franchises call for the street-car companies to maintain the track, as is customary, the paving, and also to clean the streets along which they operate.

Mr. WARREN. How much of the street?

Mr. GEORGE. Well, that was the question; and it was finally, after years of litigation, resolved to a fixed sum of money which the trac-

tion company and the city agreed would be an actual charge, which would take care of that obligation, whatever it was.

Mr. WARREN. And the obligation, in its nature, when it was expected to be performed in kind, was to actually sweep up the streets?

Mr. GEORGE. Yes, sir.

Mr. WARREN. Such as most cities do?

Mr. GEORGE. Well, I think it was built on the theory that the mules in the old horse-car days defiled the streets, and that it was necessary to keep them clean, and it was handed down as a tradition of the old mule day.

Mr. WARREN. There was no corresponding tax on the private driver of the mule, was there?

Mr. GEORGE. No.

Mr. WARREN. What else of that nature?

Mr. GEORGE. Well, we have the bridge tolls. The city of Pittsburgh and the county of Allegheny some years ago joined and purchased from private owners the bridges which connected different portions of the city, from the main section of the city to the south side and to the north side, which was then Allegheny. The old private corporations had agreements with the railway company for operating their cars over their bridges, and when the city and county purchased them they freed them to everybody, except to the street-car company, but the street-car company was still made to pay for crossing the bridges.

Mr. WARREN. And still does, pay?

Mr. GEORGE. Well, up until the time [laughter]—

Mr. WARREN. There is still a claim on the \$1,600,000?

Mr. GEORGE. Yes; it is.

Mr. WARREN. Well, do you mean, Mr. George, that the street-car riders, who, I suppose, in Pittsburgh, as elsewhere, were the people of less affluent means, taking it generally, are charged a toll for crossing free bridges in street-cars?

Mr. GEORGE. Yes, sir.

Mr. WARREN. And the automobile owners and carriage owners and all other residents use the bridges free?

Mr. GEORGE. Yes; that is true.

Mr. WARREN. Are there any other charges of that sort against the car rider?

Mr. GEORGE. Well, they have—

Commissioner MEEKER. Pittsburgh is a civilized community?

Mr. GEORGE. Well, there has been a conflict between the city and the street-car company there, which has been going on for years and years, and the city would not relinquish any hold it had on the traction company, or any charge it had made in the franchise. It held religiously to them, in order that they could exercise some degree of penalty for what it conceived to be the failure of the traction company to properly perform its duties to the city; so these charges were not built up as a proper system at all. It was merely the remnants of a conflict between the company and the city. I make that explanation in defense of the intelligence of the city administration.

Mr. WARREN. How much do those bridge tolls amount to per year?

Mr. GEORGE. About eighty-odd thousand dollars. I am wrong on that, now. I will have to ask Mr. Robinson to correct me on that.

Mr. ROBINSON. \$125,000.

Mr. GEORGE. \$125,000.

Mr. WARREN. \$125,000?

Mr. GEORGE. Yes. The bridge tolls and the street-cleaning item I confused. The street cleaning is \$80,000.

Mr. WARREN. That makes about \$200,000. I think you said altogether there was about \$300,000.

Mr. GEORGE. There is a gross-receipt tax in former Allegheny that still prevails.

Mr. WARREN. Is former Allegheny a part of the city of Pittsburgh now?

Mr. GEORGE. It is now, the north side of Pittsburgh.

Mr. WARREN. And what is that for?

Mr. GEORGE. Well, they have in some places, toll taxes. They asked the company to contribute in relation to the number of poles, trolley poles that it has. In another instance, they have been asked to contribute in proportion to the number of cars which they operate. That is not all of the city of Pittsburgh. This is in the communities around the city, as well as in the city proper; but those are different charges of one nature or another, which would go to the franchise charges which were made at the time the company was given its original grant.

Mr. WARREN. Have you in mind how much the car charges amount to?

Mr. GEORGE. Well, I could not separate those from memory.

Mr. WARREN. Well, I mean, have you in mind how much the charge per car is in different parts of the system?

Mr. GEORGE. Well, there was quite a dispute regarding that, and the public-utilities commission regarded a certain charge as a legal charge. Mr. Robinson can tell you that, too, probably.

Mr. ROBINSON. There is not any charge per car in the city of Pittsburgh, but in the outlying boroughs they have.

Mr. GEORGE. Well, that is what I am speaking of.

Mr. WARREN. I think that is all I want to ask Mr. George.

The CHAIRMAN. Commissioner Wehle, you may proceed.

Commissioner WEHLE. Did the commission understand you correctly, Mr. George, as saying that the last consolidation of the 200 or so separate companies which composed the Pittsburgh system—

Mr. GEORGE. Sixty.

Commissioner WEHLE (continuing). The 60 companies, which composed the Pittsburgh system, was in the form of a consolidation of three constituent companies?

Mr. GEORGE. The last consolidation was between three of the parent companies then existing.

Commissioner WEHLE. And those three parent companies, between them, represented what originally had been about 60 companies?

Mr. GEORGE. Yes. Some of those were legal fictions, of course, of companies, but they were not all of them operating companies.

Commissioner WEHLE. Were some of them power companies?

Mr. GEORGE. No.

Commissioner WEHLE. That sold current to street-railway companies?

Mr. GEORGE. No.

Commissioner WEHLE. Well, what were those parent companies? What were their functions?

Mr. GEORGE. The Consolidated Traction Co. was a street-railway company. The United Traction Co. was a street-railway company; and the Southern Traction, which is now the Pittsburgh Railways Co., was also purely a street-railway company.

Commissioner WEHLE. That is, all three of those companies were the constituent companies of the three parent companies, although you say some of them are not really traction companies, but had other functions?

Mr. GEORGE. Oh, no, No; I say that they were street-railway companies, but they never operated the property. It was merely forming a new company for the purpose of building a line and to issue its securities, and then become a constituent part of the older company. That was necessary for legal purposes, merely.

Commissioner WEHLE. On what basis was the stock of the three constituent companies converted into the stock of the main company?

Mr. GEORGE. It never has been entirely converted. A great portion of that stock is outstanding. The operating power which we have over those companies is merely an operating agreement.

Commissioner WEHLE. When you say, "We have operating rights"—

Mr. GEORGE. I am speaking of the Pittsburgh Railways Co.

Commissioner WEHLE. They only have operating agreements?

Mr. GEORGE. Yes, sir; operating agreements. Of course, the railways company has stock in some of the companies which they are operating, and in some cases they own all of the stock of the company they are operating, but, nevertheless, the power to control is through the operating agreement which they have, or lease.

Commissioner WEHLE. In what year was this arrangement put through?

Mr. GEORGE. I think it was in 1902.

Commissioner WEHLE. And in what proceeding? Was it the subject of inquiry at all?

Mr. GEORGE. Well, it has been the subject of a great deal of inquiry before the Public Service Commission of the State of Pennsylvania.

Commissioner WEHLE. I did not catch the answer.

Mr. GEORGE. The Public Service Commission of the State of Pennsylvania did investigate these affairs before it quite frequently.

Commissioner WEHLE. Did the public-service commission law of Pennsylvania exist at the time of this consolidation, or when it was pending in Pittsburgh?

Mr. GEORGE. I think not. I do not know what the date of our public-service commission law was.

Mr. ROBINSON. January 1, 1914.

Mr. GEORGE. 1914.

Commissioner WEHLE. Under what terms is the present Pittsburgh Railways Co. operating over the lines of the constituent companies?

Mr. GEORGE. I did not get the question.

Commissioner WEHLE. Under what terms is the operation being carried on, as to lease or otherwise?

Mr. GEORGE. Do you mean what are the terms of the agreement of the Consolidated Traction, the United Traction Co., and the other companies?

Commissioner WEHLE. Under which the Pittsburgh Railways Co. is operating over the trackage of those three constituent companies.

Mr. WARREN. Do you mean under the receivership, Mr. Wehle?

Commissioner WEHLE. No, I mean before the receivership.

Mr. GEORGE. Well, the operating agreement called for the payment of certain fixed charges of the company first, and then we have some payments of dividends on some stocks, but the dividends on the stock were only temporarily paid and were soon waived, and the operating agreement kept in force merely for the payment of the fixed charges.

Commissioner WEHLE. Well, was there no fixed rental of any sort?

Mr. GEORGE. No.

Commissioner WEHLE. Then just exactly how was this compensation to be determined?

Mr. GEORGE. Well, it was to be determined merely by their meeting these—in the first instance it was to be determined by their meeting these fixed charges and by paying the dividends on the stock, but when they failed to pay the dividends on the stock, that portion of the contract was waived, and merely the payment of the fixed charges was had.

Commissioner WEHLE. When was that failure found to be necessary, the failure to pay the dividends on the stock?

Mr. GEORGE. I could not state just exactly what the date of that was, but the payments on the stock failed very early in the case of the Consolidated Traction Co.

Mr. WARREN. Do you know when that was?

Mr. GEORGE. I can not give you that. Can you give that, Mr. Robinson?

Mr. ROBINSON. It was complete before 1912, but I do not know just the exact date.

Mr. GEORGE. The failure was complete before 1912.

Mr. WARREN. On the part of the Consolidated Co., or the other company?

Mr. ROBINSON. The Consolidated and the United. No dividends were ever paid on the Pittsburgh Railways Co.

Commissioner WEHLE. Well, the Pittsburgh Railways Co. is the operating company, I understand. I am asking you about the dividends of the three companies, over whose property the Pittsburgh Railways Co. is operating.

Mr. ROBINSON. One of those three was the Pittsburgh Railways Co. At first it was under the name of the Southern Traction Co., and as to the other two, as I said, the default was complete before 1912.

Commissioner WEHLE. Was any new stock issued by any of the three companies at the time of the consolidation agreement in 1912?

Mr. GEORGE. I am not familiar with that. You see that is not a matter of concern to the receivers of the companies, because we have long passed the consideration of the stock. We are merely now struggling with operating expenses and primary lines. If we get that far along, we would be comparatively comfortable.

Commissioner WEHLE. Still, you see, one of the purposes of this commission is to inquire into causes as well as results; and it would be interesting, when you present present conditions, to know what may possibly have led up to them. In view of some of the testimony that has been given here, it has simply occurred to me to inquire

whether, perhaps, there was some bonus stock, or some stock based on a fictitious or imaginary value, or a value based on hope, which may have been used in 1902 in connection with the consolidation agreement, in order to induce the necessary financial assistance to the whole plan of consolidation.

Mr. GEORGE. Well, that will all be——

Commissioner WEHLE. Do you know whether or not that took place?

Mr. GEORGE. No; but that will all be straightened out in the valuation which is now being made of the property. The valuation of the property has been undertaken under the direction of the Public Service Commission of the State of Pennsylvania; and that committee, in connection with the engineers appointed by the railways company and engineers appointed by the city of Pittsburgh, presided over by the engineer of the Public Service Commission of the State of Pennsylvania, is about to conclude an agreed valuation of the property, which will be the basis of the determination of the return which the company is entitled to if it can get it from the property.

The CHAIRMAN. Will that valuation consider the property as a whole?

Mr. GEORGE. Yes.

Commissioner WEHLE. Then you are really not able to give us the history of the company? All you can say is that you are one of the receivers, and the company is in very bad way financially?

Mr. GEORGE. Well, I can speak about the operating profit of the company, and I can tell you, of course, about the charges which it is expected to meet. Now, about the history of the company—we would be here for several days if I were able to go back and go through the history of that.

Commissioner WEHLE. It might be worth the time, Mr. George.

Mr. GEORGE. Well, if you are interested in it, there are several volumes that have been prepared on it, I think, and have been put in book form, and I will be pleased to send you a copy of it.

Commissioner WEHLE. Well, anything of that kind would have to go through the commission here, of course.

Mr. WARREN. Will the history enable you to explain why the company is not earning its real operative expenses?

Mr. GEORGE. I do not think it would. I do not think it has anything to do with the situation at the present time.

Mr. WARREN. You say that as a receiver?

Mr. GEORGE. Yes. The property is there, the physical property is there, and it has to be operated in a certain community, and it is reasonable to suppose that it has some value, and that whatever the overcapitalization of the property may be, that what value there is there is entitled to some return.

Commissioner MEEKER. Well, as a matter of fact, you have not yet been able to meet operating expenses.

Mr. GEORGE. That is what we are struggling with to-day to meet operating expenses.

Commissioner MEEKER. And the question of watered stock, and whether it is entitled to an income or not, has not yet come up as one of your troubles?

Mr. GEORGE. No.

Mr. WARREN. But you have 600 miles of track; and have you any power stations?

Mr. GEORGE. No; we buy our power.

Mr. WARREN. You buy your power?

Mr. GEORGE. Yes.

Mr. WARREN. But you have a good many cars, and you are not thus far earning anything on any of that property?

Mr. GEORGE. No; we have 1,300 cars.

Mr. WARREN. Has the valuation proceeded far enough to indicate anything about the probable value of the property that you can state?

Mr. GEORGE. No. Anybody who can foretell what the value would be would certainly be a very interesting citizen in Pittsburgh just now.

The CHAIRMAN. What have you done, Mr. George, as a receiver, to try to economize in the operation of the plant?

Mr. GEORGE. Well, I think that we have economized as far as we could, taking into consideration the degree of safety which the riding public are entitled to and the service which we feel that we should give to them.

The CHAIRMAN. What are those economies?

Mr. GEORGE. Well, you are speaking about operating economies?

The CHAIRMAN. Yes, sir.

Mr. GEORGE. Well, I can not say that there has been any particular economy in operation that was possible under the receivers over what was possible under the management. I think the management of the company, up to the time that we took hold of it, could not be criticized from the point of view of economy.

The CHAIRMAN. Have you directed your officers to make a study of that question?

Mr. GEORGE. Yes.

The CHAIRMAN. What was the report?

Mr. GEORGE. We did that in the budget. I made an examination of all of the charges that were included in the budget, and it was gone over very, very thoroughly. The company has been investigated year after year, by expert after expert, who has been employed by the city to come there and make a study of it to see what could be done about bringing about a more efficient operation of the property, and many recommendations have been made. Mr. Bion J. Arnold was there some years ago, and other operating men have been there, and experts have been there since.

The CHAIRMAN. Has the company accepted the recommendations made by these experts?

Mr. GEORGE. In so far as they could.

The CHAIRMAN. In your judgment, what is it necessary to do then to take care of your situation?

Mr. GEORGE. Well, the only thing that I can see that can be done at the present time is to get the fare on the best possible basis that it can be put on for producing revenue and to get, if possible, relief from some of these municipal obligations. I think progress is being made in that direction.

The CHAIRMAN. To what extent do you expect relief from these municipal obligations?

Mr. GEORGE. Well, I do not know that I have any ground to state that I expect the city to cancel what charges it has and to agree to

forego the levying of more charges against the company; but in the study which is being made by the valuation in which it is taking part, it must be brought to a realization of the fact that either service will be very materially reduced or will break down at some points, unless there is some relief afforded to the company.

The CHAIRMAN. In your study, did you discover that the company had been making extensions to lines out of earnings and charging it to operating cost?

Mr. GEORGE. The railways company?

The CHAIRMAN. Yes.

Mr. GEORGE. The Pittsburgh Railways Co.?

The CHAIRMAN. Yes.

Mr. GEORGE. I do not think it has. I do not think it has ever been accused of that.

The CHAIRMAN. That is not done while you have been receiver?

Mr. GEORGE. No; it has not.

The CHAIRMAN. Do you believe that an increase in fare is necessary in Pittsburgh?

Mr. GEORGE. I do.

The CHAIRMAN. Will that bring in the needed money?

Mr. GEORGE. It will bring in a portion of it, at least.

The CHAIRMAN. Is it your thought that an increase in fare will be a temporary arrangement?

Mr. GEORGE. No.

The CHAIRMAN. Do you believe the present high operating costs of that plant will remain for some time?

Mr. GEORGE. I do.

The CHAIRMAN. Upon what do you base that judgment?

Mr. GEORGE. Well, I do not look for a reduction in the cost of labor or commodities for some years to come, and I think that that has accounted for the high operating costs.

The CHAIRMAN. Do you expect that the operating costs will increase or remain stationary?

Mr. GEORGE. Well, I would look for it to remain rather stationary, but in the late months, the increase in the index figures indicates that there are still high prices for commodities—in the last two months—and I do not like to set my judgment up as being expert on that.

The CHAIRMAN. Prior to the receivership did you have any experience with street-railway affairs?

Mr. GEORGE. Just as a citizen.

The CHAIRMAN. Just as a citizen?

Mr. GEORGE. Yes.

The CHAIRMAN. Have you made a study of this service-at-cost plan?

Mr. GEORGE. Yes, I have.

The CHAIRMAN. Is your city making a study of that also?

Mr. GEORGE. Yes.

The CHAIRMAN. Has any conclusion been reached in respect to that plan?

Mr. GEORGE. I think that is the idea that is behind the valuation—that a new agreement will have to be entered into after the valuation is determined which will practically be a service-at-cost plan.

The CHAIRMAN. Under such a plan would you favor a zone system in your city?

Mr. GEORGE. Personally, I would not.

The CHAIRMAN. You prefer a straight fare?

Mr. GEORGE. A flat rate of fare.

The CHAIRMAN. Is it in contemplation that under a cost-of-service plan, the company should be under a regulating body of the city, or by the State commission?

Mr. GEORGE. The State commission. Under the laws of the State of Pennsylvania, the valuation will be used by the State commission to determine what are adequate rates of fare in the effort to produce a return on the valuation which had been agreed upon.

The CHAIRMAN. At present, what body controls the service and rates of your city—the State commission or the municipality?

Mr. GEORGE. The State commission.

The CHAIRMAN. And is that a satisfactory arrangement in Pennsylvania?

Mr. GEORGE. I think it is. The city has a right to complain to the State public-service commission and to be heard there, and the company has a right to defend itself before that body.

The CHAIRMAN. Is there anything in the contract which prevents the State commission from making fares as high as may be necessary?

Mr. GEORGE. Yes. The franchise you are speaking of?

The CHAIRMAN. The franchise.

Mr. GEORGE. Yes.

The CHAIRMAN. Suppose a new franchise were adopted, or the law of Pennsylvania would permit the State commission to make reasonable rates for a street-car system; would that settle your problem?

Mr. GEORGE. Well, as near as it could be worked out, in view of public sentiment.

The CHAIRMAN. Would it be as satisfactory to your city as the service-at-cost plan?

Mr. GEORGE. Well, I am only giving my personal views in this matter, but my view is that the service-at-cost plan would be better administered through a public-service corporation of a State than it would if the State commission was done away with.

The CHAIRMAN. Perhaps, you misunderstood my question. It was this: Would a law permitting the State commission to fix just and reasonable rates for a street-car company be as satisfactory to the city as a contract establishing a service-at-cost plan?

Mr. GEORGE. Well, I do not know how the city would speak in regard to that. As far as I am concerned, I think the public-service commission should be allowed to regulate those rates.

Mr. WARREN. Mr. George, how many municipalities does your company operate in?

Mr. GEORGE. Well, there are a number of boroughs adjacent to the city of Pittsburgh. They are so closely built up and contiguous to the city that they are really a part of it. I do not know, but I imagine that there are probably 13 or 14 or 15, or something like that. Do you know how many there are, Mr. Robinson?

Mr. ROBINSON. About 80 municipalities, townships, and boroughs.

Mr. GEORGE. Well, you are speaking of townships.

Commissioner MEEKER. How many?

Mr. WARREN. Eighty.

Commissioner MEEKER. Eighty?

Mr. WARREN. Yes, sir.

Mr. GEORGE. That is including the interurban. That includes two interurban lines—one which runs to Washington, Pa., and the other up the Monongahela River to Charleroi.

Mr. WARREN. But those are a part of your system?

Mr. GEORGE. A part of our system; yes.

Mr. WARREN. They are in a receivership?

Mr. GEORGE. Yes.

Mr. WARREN. Well, do you think it would be practicable—following out the line of the chairman's question a little further—to make a contract with the city of Pittsburgh relative to the rates and service that would be satisfactory to all these other political units around Pittsburgh?

Mr. GEORGE. The cities of Pennsylvania are regulated by laws of the State, and they are grouped in classes; and the laws which are passed are not passed with regard to any particular community, but are passed with regard to a class of cities and a class of boroughs and a class of third-class cities. Now, I do not know whether legislation could be so devised that sufficient flexibility could be given to all of those cities to act in a situation as complex as this would be, which would enable them to control the situation; whereas if you have the State body empowered to use discretion, then these communities could all gather before the State body and reflect their troubles and their views, and in that way you would have a better rounded out plan than it would be possible to have if all of these communities or all of these subdivisions were dealing direct with the company.

Mr. WARREN. And you think that such an arrangement as that would be reasonably satisfactory to the different communities, do you?

Mr. GEORGE. They have a very high regard for the public-service commission in the State of Pennsylvania. Public sentiment supports it.

Commissioner MEEKER. I want to ask you one question, Mr. George.

Would it be possible, or is it advisable, to discontinue some of these outlying lines? You say that you serve 80 distinct boroughs, townships, and so forth. Would it be possible to economize in the service by cutting out some of these places, for instance?

Mr. GEORGE. That, of course, is what we will have to do. We will have to reduce the service to the point where it will support itself, and that will no doubt result in some communities being without any service at all, but that would be an extreme case, it would seem to me, and it would be very unfortunate if we should have to resort to that.

Commissioner MEEKER. Well, it is a matter that we have to face. Some communities can not support any street-car service, and if service has been extended to that kind of communities, it would seem essential to cut it out; would it not?

Mr. GEORGE. Oh, there is no doubt about that. But there is a certain amount of expansion and growth which is going on in a large community all the time, and what is taken in one year as a unit as unprofitable business may be developed within a short time to be the profitable business; and the question is whether it is not the duty of the company so to conduct itself that it will cooperate

with the growth and development of the community. That is only possible if they can secure the cooperation of the community in support of the public utility, and I can not conceive of the people of any community being so blind that they are going to destroy a needed public service; in the end they will have to respond in some way to the necessities of the public service. These street-car companies are attempting to give that service.

Commissioner MEEKER. Do you think if you had an increased fare it would not be necessary to cut out the service in any community?

Mr. GEORGE. I would far rather increase the fare than cut off that service, which is the lifeblood of the community. Why should we as administrators of a public-service corporation move in the direction of destruction of property—in the direction of destruction of property values—and handicap community life? Can we not bring the lesson home to them rather by increasing the fare and telling the people what the situation is and trying to get them to respond to it? That is my thought, and it is the thought that the receivers of the railway company are acting on. If the rate is $7\frac{1}{2}$ and 10 cents, and we can justify ourselves by the necessities of the situation, we need to offer no apology for making the attempt; and I believe the people will respond. I think this idea that you are going to destroy the revenues of the company by increasing the rate of fare is to a degree fallacious, and I think we ought to move in that direction—that we ought to move toward an increase in the rates of fare and toward the education of the public that they have to pay a fair return for the service which they are getting from the transportation companies.

Commissioner GADSDEN. And you believe that in the long run the people will pay the increased fare; do you not?

Mr. GEORGE. I do.

Commissioner GADSDEN. And it is simply a question of waiting? Can you keep going a long time?

Mr. GEORGE. You have to ask them to do it before they will do it. They won't say voluntarily, "We would like to pay 10 cents rather than 5 cents"; but if they can be shown that the necessity of the situation is so great that there is no alternative—that they are face to face with a crisis, either of the interruption of service which is necessary to the communal life, or pay the fare, I think they will pay the fare.

Commissioner WEHLE. Mr. George, you have been discussing this now from a public-policy point of view?

Mr. GEORGE. Yes, sir.

Commissioner WEHLE. And we will assume now for the sake of the discussion that this increased fare ought to be had; and you speak of educating the public and convincing them that it is both necessary and just that they should have it. Now, we have been hearing to-day—and you have been here, I think, for the last few days—from officials of the railway companies and investment companies, to the effect that there are certain deplorable practices that have prejudiced the people against the companies, so that they do not do them justice.

Several of these gentlemen have stated that these practices should not continue. For instance, one of the practices that were discussed

was the practice of issuing bonus stock, and it has been stated that were it not for the fact that there is no way of controlling the companies, the better element in the public-service business would be able to avoid the continuance of the practice. Now, if that fare were raised, as you say it should be, and if nothing were done by us or by the American Electric Railway Association or any of the other influential interests that have this matter in their hands at the present time, to eradicate those things which have prejudiced the public mind and which have also led indirectly to, or contributed at least to the present condition which the railroad companies find themselves in, are we not going to end up, in another 5 or 10 years, with this issue all over again? I want to ask you this with the thought in mind, in the first place, whether you agree with me. Do you agree with me?

Mr. GEORGE. I think I do; and I have confidence that this commission is going to make a statement which will be clear to the public—that such practices as did prevail in the past are no longer to be tolerated.

Commissioner WEHLE. But, mark you, Mr. George, such practices as that have got to be handled not only by a small group, such as we are, with advisory and purely persuasive powers, but those changes have to be effected by the men who are in the business themselves.

Mr. WARREN. There was not any evidence, as I understood the witnesses, that those practices are continuing at present, but that they were all well in the past.

Commissioner WEHLE. Well, Mr. Warren, I understood this from some testimony given yesterday, and that at present it is impossible to sell stock anyway, so that the subject of issuing bonus stock is a dead subject for present purposes, but that up to about the time—say 1914, or a little bit earlier, perhaps—when the street-railway business was still a fairly prosperous going concern, this practice still did prevail.

Now, I am going to ask Mr. George, because he has taken a somewhat statesmanlike view of the public-service problems here and has given us a very interesting discussion of them, whether he could give us any suggestion as to any combined effort that might be made by the American Electric Railway Association or any other general public movement which might be instituted by them, or by any public body, looking toward the eradication of those practices, looking toward a clarification of the methods of the business and finances that the public-service companies pursue, so that a program may be formulated looking toward the financial relief of the companies which would be more favorable to them than those that are now prevailing, and that the people would have some sort of a guaranty that this great big public-service business will be conducted on a fair basis from now on. We are all here equally interested in the solution of this big public problem, and I do not think it would be a waste of time for us to address ourselves to that question.

I would like to have Mr. George, if he would, give to us, either this afternoon or to-morrow, some statement as to what constructive, preventive measures could be put forward by the American Electric Railway Association, itself, looking toward an eradication of those

abuses of which we have been speaking and on which we are all agreed that they exist.

Mr. GEORGE. Well, I will not be here to-morrow, and if you will give me just about two minutes—I think public sentiment has taken care of that situation to a large extent, that those things which were possible, and which have been done in the past, have had their natural outcome, and I do not think it is possible in the future. In addition to that, the public-service laws of the different States have, to a very great extent, taken care of that situation, and it would be impossible, in most States, to do any of those things which were done in the past and which have to an extent contributed—to a large extent contributed—to the present unfortunate state of the public mind, as it is reflected in these questions.

Commissioner WEHLE. Now, Mr. George, of course the incident that I happened to refer to—the issuance of fictitious stock, or, rather, stock based on a fictitious value or hope—I suppose has been largely prevented for the future by laws, in a number of the States, at least; but does it occur to you that there are any other kinds of control that could be exerted, not necessarily against actual unscrupulous dealing but, perhaps, against the injudicious development or overextension by companies of their property?

Mr. GEORGE. I think the public-service laws of the different States have very well covered that. In the State of Pennsylvania, it is very effective. We can not move in the management of the company in Pittsburgh without complaint being registered by the city of Pittsburgh before the public-service body of the State. They tell us to put on more cars. If some citizen in some community complains of the service that is afforded that particular community, he has a right to be heard before the public-service commission, and they say whether we shall put that service on, or whether we shall not put that service on.

Commissioner WEHLE. Let us take a hypothetical case. Suppose we take a company in some hypothetical State, in some hypothetical city unnamed, and the men in that company were men who were interested in the development of land in a certain outlying district, and at the risk of the company's financial condition, in order to better the values of the land, they were to go into the construction of an extension. That is a situation which is not absolutely unknown in American life. Now, if that extension happens to have been imprudently constructed from the point of view of the stockholders of the company, and from the point of view of the public, which ought to have a proper kind of improvement in service in the really thickly populated part of the city, what check is there in most of our cities, or in most of our States, against that kind of imprudence?

Mr. GEORGE. Well, if you gentlemen will agree to recommend what I would suggest in that instance, I would make land speculation unprofitable. That is my remedy on that situation but, of course, that is somewhat in advance of public sentiment at the present time.

Commissioner WEHLE. You do not think there is any way of getting at the characters of the street-railway men in such cases?

Mr. GEORGE. Well, that is police power, and it is not very effective in controlling the action of people where the public sentiment is not against their action.

Commissioner WEHLE. You think that, perhaps, placing in the control of the public-service commission the creation of any new extensions would guard somewhat against that kind of an abuse?

Mr. GEORGE. The extension of a street-railway line they attempt to guard with the greatest secrecy; but somebody always tells somebody, and somebody always buys something out in the neighborhood where the extension is about to be made, and somebody generally makes a handsome profit on his purchase. Now, if you can devise some method of controlling that, you will make a great contribution to a very serious problem.

Commissioner WEHLE. Now, Mr. George, we are not talking about somebody making money out of a land speculation at all.

Mr. GEORGE. I understand.

Commissioner WEHLE. We are talking about public service. We are talking about the effect on the finances of a public-service company when it has made improvident extensions. Now, what I would really like to have from you is a statement as to whether or not you think it would be well for the public-service commissions to have control of the construction of extensions and control of the decision as to whether or not finally a construction of an extension of the line should be entered into.

Mr. GEORGE. Undoubtedly.

Commissioner BEALL. They have that in very many States now.

Commissioner WEHLE. I know they do in a number of the leading communities.

Mr. WARREN. They have it in Pennsylvania, I understand.

Commissioner WEHLE. They have it in a few of the leading communities, Mr. Warren, but my suggestion goes to the idea that perhaps you gentlemen who are interested in clarifying this situation should even go to the extent of supporting legislation of that kind, instead of—as has often been done by constituent members of your organization—actually resisting it.

Mr. WARREN. Let me say for the association—because I can not say it for each of the 1,500 members—that I am authorized by the president of the association to say that the association is definitely in favor of regulation and control by public-service commissions not only in the States where that already exists, but the association is in favor of its extension to all of the States of the Union; and that that includes the regulation of securities in every respect. Of course, having lived in Massachusetts so long, I can not imagine some of these things not being in effect. We can neither build an extension in Massachusetts, nor issue a share of stock, or a dollar's worth of bonds, or a dollar of any debt running over 12 months, without the approval of the commission. We have to have a certificate of public exigency from the commission before we can build any extensions, even though it be a turnout on a single-track line; and it has done no harm. If anything, there has been too much building in Massachusetts, notwithstanding that restriction, because, with all of that regulation, the statement of the trolley lines of Massachusetts for the last year—1918—I think is probably the most discouraging of any State, as to the operating expenses alone; and I am going to put an official statement in later, but I think the operating expenses alone were 87 per cent of the gross receipts of our companies, although they are so closely regulated.

So that whatever this crisis is due to, I do not think it can be due to failure of regulation, or abuses, which I condemn as fully as anyone can in the way of issuing securities, but because, as in this very Pittsburgh Co. case, whatever its history may be, it is not earning its operating expenses, and that is true of a good many companies all over the country.

Commissioner WEHLE. I think seriously—following the thought suggested by Commissioner Sweet yesterday, and which seems to be so generally accepted, too—that one of the serious elements in this situation is the state of public regulation.

Mr. WARREN. I agree with you entirely.

Commissioner WEHLE. And these questions were addressed to some constructive way of removing certain antagonism that lies in the public opinion.

Mr. WARREN. I did not want you to think that our association here did not believe in progressive and proper legislation. I think practically every forward-looking man in the public-utility business to-day, however much he may be irritated occasionally by the particular exercise of public control, believes that it is an advantageous thing and in the long run is going to benefit the public-utility industry, not only trolleys, but all others.

Commissioner SWEET. You will not be here to-morrow, Mr. George?

Mr. GEORGE. No.

Commissioner SWEET. What court appointed you?

Mr. GEORGE. United States court—United States district court.

Commissioner SWEET. What was your business before?

Mr. GEORGE. Real estate.

Commissioner SWEET. Have you any personal interest in street-railway properties?

Mr. GEORGE. None whatever.

Commissioner SWEET. Who are the other two receivers?

Mr. GEORGE. Mr. Charles A. Fagan, who is an attorney, and Mr. S. L. Tome, who was the former president of the Pittsburgh Street Railways Co.

Commissioner SWEET. Are they interested in street railways?

Mr. GEORGE. Mr. Tome was formerly the president of the company.

Commissioner SWEET. He has stock in it?

Mr. GEORGE. I don't know.

Commissioner SWEET. You don't know?

Mr. GEORGE. I don't know what stock he has. Mr. Fagan was an attorney at law and, as far as I know, had no interest in the company.

Commissioner SWEET. You expressed a distinct preference for the service-at-cost plan?

Mr. GEORGE. Yes.

Commissioner SWEET. Do the other two receivers share your views on that question?

Mr. GEORGE. Yes.

Commissioner SWEET. They do?

Mr. GEORGE. They do.

Commissioner SWEET. When you entered upon your duties, you probably thought there was something wrong about the company,

because it had defaulted in some of its payments and was not running successfully; did you not? You thought there might be——

Mr. GEORGE. I knew there was something wrong. It was perfectly apparent.

Commissioner SWEET. Well, I mean something wrong in the management of the company.

Mr. GEORGE. Oh!

Commissioner SWEET. Did you not think there might be something wrong there?

Mr. GEORGE. I felt that there might be something crucially wrong in the management; yes.

Commissioner SWEET. And you entered upon your duties in a somewhat——

Mr. GEORGE. Critical mood.

Commissioner SWEET. In a somewhat critical mood?

Mr. GEORGE. I did.

Commissioner SWEET. And your investigations satisfied you that everything was honest and that the management was capable; did it?

Mr. GEORGE. It did.

Commissioner SWEET. Honest as well as capable?

Mr. GEORGE. It did.

Commissioner SWEET. So that you are now convinced that the troubles were inherent—something that was beyond the control of the management?

Mr. GEORGE. Well, it was historical, due to old competing days. Of course, Pittsburgh has a very difficult operating problem—more difficult than almost any other city in the country. Perhaps Boston——

Commissioner SWEET. But the trouble was in the problem rather than in the personnel?

Mr. GEORGE. Yes; and the manner in which it had developed by the evolutionary process. Of course, you would not build the same street-railway property to-day. It does not fit the situation exactly; but nobody could foresee just what the situation as it is to-day would be. In other words, they built as well as they could, with the light which they had in those days, taking into consideration, of course, that there were a number of people who were bidding one against the other for a foothold in the business; and they built competing lines. Very often they made a duplication, but as far as the management of the company was concerned, I have lost my critical aspect toward it and feel that the management is good.

Commissioner SWEET. In the extensions made by the company into outlying districts, do you think mistakes have been made in the past?

Mr. GEORGE. I think that they overbuilt, but that, of course, was to an extent not their fault. In the growth and development of Pittsburgh—you know the territory is very peculiar there, and the great amount of broken territory right in the city, where it is not suitable for building, and long stretches where you go out along the lines, there is practically no traffic; maybe there is a house on each side of the street, and behind that there is always a hill that goes up.

Commissioner SWEET. Yes.

Mr. GEORGE. There is a great deal of territory of that kind and, in addition to that—as develops in a great many communities—there

would be the development in the downtown, then perhaps a little sparsely settled district, a little community farther out, and then more undeveloped territory, and another community farther out, and then working all the time for the purpose of connecting up these little communities which had developed, and working in such a manner as would contribute to a proper growth and development of the city.

Commissioner SWEET. And afford reasonable facilities to those people who had located there?

Mr. GEORGE. Yes.

Commissioner SWEET. And enable them to get back into the main community—the center?

Mr. GEORGE. To allow a man to live at one place and work at another place.

Commissioner SWEET. Yes.

Mr. GEORGE. That is the great need, it seems to me, that is supplied by the transportation companies. A man should not live right around the mill where he is working; and if he has a job and wants to get to another section of the city to seek employment, he ought to be able to go there without moving his family and everybody else. There should be a chance for them to circulate and live where they want to live and work where they want to work.

Commissioner SWEET. Is it the rule with the company of which you are receiver that the rates are different from one community to another? As you go on these interurbans, you have different rates, have you not?

Mr. GEORGE. Yes; only on the interurbans. The new rate of fare which we have in effect is more of a flat fare than any fare that they have ever had there, in that we are giving now what they never had before—a cross-town transfer privilege. Ten cents will entitle a man to cross the downtown section, with a transfer—something which they never had before.

Commissioner SWEET. That was put in operation by the receivers?

Mr. GEORGE. We put that in operation in the attempt to afford that freedom of travel from one section of the town to the other, and we are getting away from this zone system of fares which, to my mind, works toward the congestion of population, and it has a tremendous effect.

I want you gentlemen to consider what any discrimination of 2 cents in railroad fares will mean to a family of, say four riders a day. To see what it would mean, I figured it out one day, as a real-estate man, and I figured that a lot that was just inside of a zone that had a 5-cent fare was worth about \$30 a front foot more than the lot that was just outside of a 5-cent zone, in a 7-cent zone, to a man who had four daily riders on the street cars. He could afford actually, if he was buying a 30-foot lot, to pay \$30 a front foot more to get inside that zone. And don't you think they will get in?

Why, they will get in; and the apartment houses will get in; and there will be a tendency toward congestion in these American cities which will approach the situation in Glasgow to-day, and if you have been familiar with the studies which have been made of housing conditions in Glasgow, they will cure you of any notion that street-car companies should be built up for the purpose of raising revenue and, at the same time, working against the proper distribu-

tion of the population of a city. If you will allow me to regulate rates in the city of Pittsburgh, I can move the population and create land values and destroy land values.

Commissioner GADSDEN. Now, Mr. George, admitting that, is not that casting the burden of the solving of the social problem on the street railways, and not on the community?

Mr. GEORGE. Well, we have got to cooperate one with the other.

Commissioner GADSDEN. Have not the street railways in the past solved that social problem at their cost, and is not that one of the troubles that we are up against?

Commissioner SWEET. That is, the flat rate, you mean?

Mr. GEORGE. Yes; I think the street-car companies made a valuable contribution, but they felt that they were going to be rewarded for doing it.

Commissioner GADSDEN. Yes, and they have not been?

Mr. GEORGE. And they have not been.

Commissioner GADSDEN. And the community has gotten its consideration.

Mr. GEORGE. Oh, it has gotten its consideration.

Commissioner SWEET. But the general practice has prevailed in the past in the direction that you think is right, of spreading communities, instead of bringing them into congested centers?

Mr. GEORGE. I do not believe any city can afford to see a system of zone fares built up in it. I think it would be tremendously destructive to the right sort of development of the city.

Commissioner SWEET. And I think most people would agree with you on that point, with regard to sanitation, and perhaps with regard to morals.

Mr. GEORGE. Not only that, but it would be destructive of business locations which have been created on a flat system of fares.

Commissioner SWEET. Yes.

Mr. GEORGE. Take a man's business house that is located in a community and that has a large investment made there, and the business is established and you make him work against a handicap of an increased rate of fare to get to and from him, as against his competitor. In what shape does that put his business?

Commissioner GADSDEN. Does not that seem to indicate—and I am not questioning the wisdom of what you say—that the only solution of this problem is that the community shall own the street railways and absolutely run them?

Mr. GEORGE. I am not ready to admit that. I may later on, but not yet.

Commissioner SWEET. Do you think that the service-at-cost plan would solve that problem?

Mr. GEORGE. I think so. Of course the cost is going to be higher than it is at the present time, and I think the people have an antagonism toward an increase in rates, which, to an extent, is due to the bad relationship which has existed between the public and the public-service corporations in the past. I think that is one of the big hills they have to climb, to get over these increased rates of fares. Whether they can successfully get over, and in time to save themselves, I do not know, but I think we ought to make the attempt in that direction.

Commissioner SWEET. If I understood you right, you have a zone in which the fare is 7 cents within that zone?

Mr. GEORGE. At the present time, yes.

Commissioner SWEET. Suppose a person wanted to ride three blocks within your outside zone, the fare would be 7 cents?

Mr. GEORGE. Yes.

Commissioner SWEET. And he might ride a great many more blocks in the 5-cent zone for a nickel?

Mr. GEORGE. Those inconsistencies——

Commissioner SWEET. Do I understand that to be the real ordinary idea of a zone system?

Mr. GEORGE. No. But no matter what sort of a zone system you build up, there has got to be a line some place.

Commissioner SWEET. Sure.

Mr. GEORGE. A man just on one side of that line and a man just on the other side of the line will be very differently treated.

Commissioner SWEET. Sure.

Commissioner GADSDEN. You have given us your estimate with respect to real estate value on each side of the zone. I am interested in that. How did you arrive at that?

Mr. GEORGE. Well, I took four people riding each day. That was 8 cents, and twice a day was 16 cents, and 30 times 16 would be \$4.80, and 12 times——

Commissioner SWEET. That would be per month?

Mr. GEORGE. Yes; and 12 times \$4.80 would be——

Commissioner GADSDEN. \$56.

Mr. GEORGE. Well, almost \$60.

Commissioner GADSDEN. \$54.

Mr. GEORGE. Something less than \$60; and this return at 6 per cent is on an investment of a thousand dollars, is it not? And if so much a day is worth a thousand dollars of cash investment, a man could afford to pay a thousand dollars more for a lot inside than outside the zone; and if it is a 30-foot lot, it would be \$30 a front foot.

Commissioner GADSDEN. That is what I wanted to get.

Mr. GEORGE. That is my method of reasoning; and if you do not believe it, you just establish a zone once and see the people rush to the apartments just inside the zone and the increase in rents which would result.

Commissioner SWEET. You could not entirely get rid of that condition, could you, Mr. George, when you come to suburban railways?

Mr. GEORGE. That is a different proposition. That is natural. It is sort of natural out in the country there; and that is reflected, really, in the value which the man puts on his ground when he goes out there, because the landowner has discounted that. If you go close to the city, where the rate of fare is lower, you will pay more for your land.

Commissioner SWEET. Then they are not subject to municipal taxes?

Mr. GEORGE. No.

Commissioner SWEET. So that they offset each other to a certain extent?

Mr. GEORGE. Yes.

Commissioner SWEET. But this zone plan that you have been telling us about—is that within the same municipal limits?

Mr. GEORGE. They had rather a thin justification for it, but the justification was this: That where a number of people are riding in a car, they distribute the cost of running that car for people who are riding in it. Out in the sparsely settled districts, where there are not so many riders, and each pays a proportionate cost of operating that car, they ought to pay more money individually to make good the deficit.

Commissioner SWEET. Did you hear what was said by one of the witnesses here in regard to the need of elasticity in the adaptation to the income of street-railway companies to varying conditions, the same as in other industries?

Mr. GEORGE. Yes.

Commissioner SWEET. Do you think that that is as it was presented by that witness, or do you think that a straight raise of fare would permanently solve the question?

Mr. GEORGE. Well, I do not believe in creating values by the earning power of public utilities. That is, I think the public has an interest in the public utilities, and that capital, even if it gets a fair return, should not expect to make any speculative profit on it; but I think that capital should get a fair return. Now, in order to prevent them, as they have in Cleveland, and as they attempted to do in Boston, if they establish a reservoir into which this surplus goes, and then that can be withdrawn either for the purpose of rendering a similar service at a lower rate of fare or a better service at the same rate of fare, why, I think that is the proper method of doing it. I think that is what should be done, and I do not believe that, if that is worked honestly and the people become accustomed to it, there will be any difficulty in replenishing that fund for needed enlargement, maybe, by the public, if it becomes necessary.

Commissioner SWEET. Did you hear the statement made by a witness who said that street-railway companies could not remain in statu quo; they either went forward or backward, and that they could not be in a healthy condition unless they were getting in new capital? And do you think that statement is true?

Mr. GEORGE. Undoubtedly, because the street-car company must reflect the growth of a community, and it must grow as the community grows. In fact, it must grow a little in advance and help the growth of the community, it seems to me, and that necessitates, of course, extensions, and extensions should be made from the new capital which is secured.

Commissioner SWEET. Is there anything you would like to say further. Mr. George, before we adjourn?

Mr. GEORGE. I think I have exhausted more time than I should have used.

Mr. WARREN. Mr. George, there is one further question: Do you have jitneys in Pittsburgh?

Mr. GEORGE. Yes, sir; we have jitneys. They come and go. I think that they solve their own problem. I do not think we ever will be rid of them, but I do not think we need fear them.

Mr. WARREN. Even with a 10-cent fare, Mr. George?

Mr. GEORGE. No.

Mr. WARREN. For short distances?

Mr. GEORGE. No. They will do a certain amount of business. I may be very sanguine. You must remember that I am a novice in this business. I have only been in it six months.

Mr. WARREN. It is a question of public interest in a community, possibly, as against the business principle of operating a utility.

Mr. GEORGE. Well ought not the public, then, to protect the company against licensing these jitneys, who perform no constant service and who, perhaps, are just using the streets temporarily? Ought they not to regard that and its effect on the company, which is encouraged to buy a constant service, and under the jurisdiction of the city and the State?

Mr. WARREN. They ought to do that. I am not sure that the community would not have to go a step further and absorb itself the difference between such a rate as the people in the inner part of the territory were willing to pay to ride, and the amount that would be lost by the people in the outer part of the territory. That is a feature that has been considered in Massachusetts this very winter. In Boston now, where they have gone to 10 cents, I have heard—since I came down here, so I do not know what the fact is—in certain parts of Boston, very near the heart of the city, they are walking at present rather than pay the 10-cent fare, because they are so near that they feel that it is a discrimination against them, as against the discrimination you speak of against the people on the other side of the zone line.

Mr. GEORGE. Well, they will walk for a while, but the question is whether the natural laziness or desire to avoid exertion will not cure them of that habit.

Commissioner SWEET. We will stand adjourned until 10 o'clock to-morrow morning.

(Whereupon at 5.40 o'clock p. m., the further hearing of this case was adjourned until to-morrow, Friday, July 18, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *July 18, 1919.*

Met pursuant to adjournment, at 10 o'clock a. m.

Present: Parties as before.

Commissioner SWEET. The hearing will come to order. Mr. Warren, are you ready to proceed?

Mr. WARREN. Yes, I am, sir. I will ask Mr. Sisson to take the stand.

STATEMENT OF MR. FRANCIS H. SISSON.

Mr. WARREN. Give your full name, please.

Mr. SISSON. Francis H. Sisson.

Mr. WARREN. And you are one of the vice presidents of the Guaranty Trust Co.?

Mr. SISSON. I am one of the vice presidents of the Guaranty Trust Co.

Mr. WARREN. Have you had occasion to give a great deal of attention to the economic features and the financial figures of public utilities?

Mr. Sisson. I have.

Mr. Warren. Including street railways?

Mr. Sisson. Yes.

Mr. Warren. Without questioning you in detail—will you state to the commission your view of the situation as regards street railways, particularly their credit and their economic situation, as well as their needs?

Mr. Sisson. Mr. Warren, with your permission, and with the permission of the commission, I have prepared a brief memorandum, which sets forth some of my formal conclusions, which I will be glad to lay aside for questions later, but I would like to run over some of these points, with your consent.

I have addressed my memorandum chiefly to the street-railway credit and the cost of capital for street railways.

The cost of money is affected by conditions which affect all other costs. The law of supply and demand affects it primarily. The degree of safety and future promise are also instrumental in determining it. There is every reason to believe that, with the tremendous destruction of wealth which has taken place in the world, both through its physical loss and the diversion of vast numbers of men from productive industry, there will be a long period of tight money in which the demand for capital will exceed its supply. The rehabilitation of Europe, the conversion of industry, labor unrest, the reestablishment of trade and the instruments of commerce will all make large drafts upon the available capital of the world, which must inevitably be reflected in higher charges.

As long as wealth remains in private hands, subject to private disposition, it will seek the most profitable fields of investment. It can not be coerced into situations that do not promise reasonable protection and return, and the present public attitude toward public utilities, whether inspired by political considerations or selfish ignorance, has inevitably diverted capital from such channels into others not subject to these limitations.

This is not a question of the bankers' attitude toward the subject, as the bankers are for the most part but middlemen in the handling of securities of this character. The ultimate investor fixes the conditions upon which he will purchase securities, and the question of rate is simply that at which the security will pass to the buyer. It is certain that, unless there is a widespread change in the public attitude toward public utilities, the security buyer will not hazard his money in such ventures, and the bankers have no choice but to follow his decision. Furthermore, it is certain that no satisfactory alternative is left in public ownership, as there is nothing in the record of public ownership on the whole to warrant the hope that this may offer a solution of the problem.

Stripped of all complications, the question seems to be whether or not the American public are willing to pay for service rendered. The alternatives are simple—either the service will not be rendered and the growth of our communities and the comfort of our people will be denied, or the cost must be met, either directly through fares, or indirectly through taxes. As to which of these alternatives is economically sound, I assume there can be no doubt.

The open question is whether the traveling public will continue to deny to its utilities the basis of charges which it accepts in every other line of business.

With the average purchasing power of the dollar decreased generally about 50 per cent since 1914, it is impossible for 2½ cents to buy 5 cents worth of transportation. That is the sum and substance of the whole situation.

The impairment of the street-railway-credit structure has been brought about through increased operating costs coupled with a fixed unit of fare. Prices of some of the most important material used in the maintenance of street-railway property have increased 38 per cent to 126 per cent over those in 1914. Increases in wages and fuel, the largest items in the cost of operation, in some localities are as high as 100 per cent over prices prevailing in 1914. In recent testimony before the congressional Committee on Appropriations, it has been estimated that the cost of labor and materials over pre-war prices was 85 per cent.

In times of lower costs the profit from the short-haul carried the long-haul passengers for the same fare. When the margin of profit from short-haul business was wiped out by increased cost of operation, the economic unsoundness of the traction business became critical.

In many cases this condition was aggravated by local difficulties, such as cheap motor-car competition, franchises litigation and excessive burdens imposed by regulating bodies.

As a result, net earnings of the traction companies fell off. Where relief was granted it usually did not come until the companies were already in a weakened financial condition and credit seriously impaired.

Under such circumstances the companies found it increasingly difficult to attract new capital by means of stock issue. A few instances may be given to illustrate how the market for street railway stocks was affected: In 1908 the stockholders of the Boston Elevated Railway were permitted to subscribe to new stock at \$110 per share, the par value of such shares being \$100. Some 1,500 shares were not subscribed for, and these were bid in at public auction at \$130¾ per share in May, 1909. By December, 1917, Boston Elevated Railway capital stock had declined to as low as \$27 per share. Twin City Rapid Transit stock, which sold at 107 in February, 1909, fell to 32 in 1918. Union Traction Co. of Philadelphia sold at \$58½ per \$50 share in May, 1909; in 1918 it sold as low as \$37 per share.

Finding it difficult, if not impossible, to obtain new capital through the issue of stock, the street railways have had to resort to financing by means of fixed charge obligations. As the margin of safety over interest requirements diminished and the risks attending investments in street-railway securities increased, the companies have had to offer greater and greater inducements to attract the necessary new capital. Capital had to be secured to take care of maturing obligations at interest rates, in many instances higher than the fixed rate of return allowed on the investment by franchises and other regulations, and with the temporary sacrifice in many cases of a large part of the equity value. Such costly financing increased the companies' burdens still further, resulting in still further impairment of credit.

In the following table a comparison is made of the yields on various standard street-railway bonds in July, 1909, and July, 1919. This indicates roughly how much more the street railways must pay for capital to-day than they did 10 years ago.

I will not undertake to read this table, but will just leave it with your secretary.

Mr. WARREN. Won't you read just two or three of them?

Mr. SISSON. For instance, here is a range in 1909 from 3.84 to 5.90 in the yield of such bonds as the Detroit United First Consolidated and West End Railways and bonds of a similar character, standard public-utility bonds which to-day are ranging from 5.74 to 13.25—5.74 being the lowest and 13.25 being the highest—an increase of 100 per cent and more in the range of yield.

Mr. WARREN. And those are companies which are considered particularly strong and gilt-edge securities?

Mr. SISSON. The best securities in the public-utility market, as the table shows.

The table contained in Mr. Sisson's statement, and referred to by him, is as follows:

	Year.	Price July, 1909, to yield.	Price July, 1919, to yield.
Detroit United 1st Con. 4½s.....	1932	5.90	7.55
New Orleans Railway & Lt. Gen. 4½s.....	1935	5.48	19.64
United Railways of St. Louis 1st 4s.....	1934	5.01	9.98
Chicago City Railways 5s.....	1927	4.68	9.75
Metropolitan West Side El. 1st 4s.....	1938	4.68	9.40
South Side Elevated 4½s.....	1924	4.95	9.71
West End Railway Co. Deb. 4s.....	1932	3.84	6.00
Philadelphia Rapid Transit Col. Tr. 5s.....	1957	4.85	5.85
Aurora, Elgin & Chicago 1st 5s.....	1941	4.94	9.30
Chicago Railway 1st 5s.....	1927	4.90	9.80
Duluth Street Railway 1st 5s.....	1930	5.00	7.82
Los Angeles 1st 5s.....	1938	4.68	6.42
Louisville Ry. Con. Mort. 5s.....	1930	4.45	5.74
Denver C. Tram. 1st & Ref. 5s.....	1933	5.22	13.25
B. R. T. Gen. 5s.....	1945	4.60	8.40
B. R. T. 1st Ref. Conv. 4s.....	2002	4.63	8.70
Conn. Ry. & Lt. 1st & Ref. 4½s.....	1951	4.40	6.92
Interborough Rapid Transit 1st & Ref. 5s.....	1966	5.05	6.92

¹ Interest delayed.

² Stock yield.

Mr. SISSON. A striking contrast is afforded by a comparison of yield on a few standard industrial bonds for the same period.

	Year.	Price July, 1909, to yield.	Price July, 1919, to yield.
American Tobacco 4s.....	1951	5.15	5.30
American Tobacco 6s.....	1944	5.25	5.15
Bethlehem Steel 1st Ext. Sk. Rd. 5s.....	1926	6.05	5.60
U. S. Steel Sk. Fd. 5s.....	1963	4.70	4.95
Va.-Car. Chem. 5s.....	1923	5.15	5.65

I have quoted here such bonds as the American Tobacco 4s, which have a range only of from 5.15 to 5.30, and such bonds as the United States Steel, which have a range of from 4.70 to 4.95 and, in some instances, a positive decrease. American Tobacco 6s show

a yield of 5.25 in 1909, and a yield of 5.15 at current prices, and that is true broadly in the whole industrial field.

Under these deplorable conditions, electric-railway-security owners have seen their holdings precipitately and alarmingly depreciate in value. With the opportunities offered to the investing public during the last few years to purchase the securities of industrial companies which have shown extraordinary earnings, electric-railway securities have found few buyers. With the war-time demands upon capital, these securities have sold at prices which have been so low that the electric-railway companies have had the utmost difficulty in obtaining and, in some cases, have been absolutely unable to arrange long-term financing. Under the ordinary operation of economic law, the electric-railway companies have been compelled to pay high rates for the capital they did get, which has further reduced the return on their securities.

Another factor, however, which has contributed largely to the difficulties of the situation, has been the wage awards of the National War Labor Board.

In this connection, it may be illuminating to quote the following sentence from a letter written by the receiver of a New England electric-railway company:

The receivership is a direct result of the National War Labor Board's award, which placed an additional pay-roll burden of \$125,000 per annum upon the company, notwithstanding our having submitted to the board a full statement of our funds and demonstrating to them that any other increase in wages would create the situation which we now face.

In a hearing between the street-car companies of Cleveland and Detroit and their men, the companies pleaded that they should not be required to raise wages because they had no income out of which to pay the increase. They said: "We are working under a franchise on which we receive only 3 or 4 cents a passenger carried many miles and, if a substantial increase in wages be granted, bankruptcy and a receivership must follow."

Yet, the general chairman of the board of arbitrators in these cases held that the financial condition of the companies could not affect the issue at stake—the issue of wages.

Such rulings, however, are only in keeping with the general public's attitude toward the electric railways, which has compelled these companies to operate under two distinct and, in some respects, diametrically opposed kinds of law—legal and economic. The seriousness of this handicap is apparent when it is realized that probably one-half of the gross operating expenses of a railroad consists of direct labor costs, which are constantly increasing while the abnormally low rates for the service rendered by electric railways were, in many cases, fixed years ago by special laws or by provisions contained in ordinances or franchises. The rate of fare, in effect, was a part of the consideration for granting franchises.

But the franchise method of fixing rates is too rigid to meet present-day conditions. The franchise, while holding down the charges for the service, does not hold down costs; consequently, costs have rapidly been overtaking gross revenues and have reduced to the danger point the margin between the two.

The commission form of regulation was developed largely with a view of remedying the evils of the rigid franchise method, but even

the commission form of regulation is losing esteem among the thinking people because of the attitude many commissions have assumed toward the public-utility corporations.

Transportation can not be rendered at less than cost without the money to make up the deficit coming either from the security holders or the taxpayers, or both. It should be obvious to all that the cost of transportation ought to be borne by the users of transportation and that some plan should be worked out by which such provision is made.

If public authorities maintain the position they have held and unwarranted additions are continuously made to the tax burdens of communities, the bonds of municipalities will not be attractive to bankers or investors, and the growth and prosperity of many cities will be seriously threatened. Indeed, as has been pointed out, there is involved in the situation the validity of a huge structure of investment and credit, the undermining of which can not fail to have far-reaching effects upon general credit and business prosperity, for the credit of our transportation lines can not be placed in jeopardy and the effects localized or even restricted to these utility companies. Cities can not be prosperous without efficient utilities; and utilities can not be efficient without prosperity. Public regulation involves public protection of credit.

There can be no possible justification for imposing such burdens as are being inflicted upon security holders and taxpayers to-day in an attempt to give something for nothing, by allowing the users of transportation lines to enjoy the conveniences provided them at less than cost. The crux of the whole problem is that fares should be fixed on an equitable basis that will assure earnings sufficient to meet operating expenses and pay a fair return on invested capital. And by "invested capital," I mean actually invested capital, in its broad sense.

The electric-railway security holders do not seek exorbitant increases in fares; quite the contrary. They are fully cognizant of the fact that it is to their interest, as well as to that of the public, to keep rates for service as low as possible, for low fares benefit the companies through stimulating business.

In facing this situation public authorities should not forget that they are holding in their hands the credit of their cities—savings banks, life insurance companies, and other investment institutions, and a large portion of the invested wealth of the country.

The problem is not merely local or political but of nation-wide business importance: and if it is not fairly met, is capable of having a widespread and disastrous effect on business—an effect which every business interest, directly or indirectly, but inevitably, must share.

MR. WARREN. Mr. Sisson, referring to that last statement about the effect on business generally, are the securities of street railways, in your opinion, pretty widely distributed?

MR. SISSON. Yes; they are.

MR. WARREN. And if this whole structure collapses, representing an investment of about five or six billion dollars, you think that the effect would be very widespread and very serious?

MR. SISSON. I do. I think public-utility securities are more widely distributed than any class of securities, broadly speaking.

Mr. WARREN. And that is more true of street railways than of any other class of securities?

Mr. Sisson. Yes.

Mr. WARREN. It is more true of street railways than of any of the others, except the railroads?

Mr. Sisson. Yes.

Mr. WARREN. You spoke in the course of your statement of the need of increased fares. Have you, from your study of the street-railway situation, any doubt that, generally speaking, an increase in the fare will produce a substantial increase in revenue?

Mr. Sisson. I have no doubt about that; no, sir.

Mr. WARREN. You have no doubt about it?

Mr. Sisson. No.

Mr. WARREN. You spoke also of the diminishing margin of profit on the short-ride haul.

Mr. Sisson. Yes.

Mr. WARREN. As making it impossible longer to continue the low flat rate for all riders. What would be your remedy for that?

Mr. Sisson. Well, the most obvious suggestion is that of the zone system, of charging on some mileage basis.

Mr. WARREN. Under which a rider would pay for what he got?

Mr. Sisson. Yes, sir.

Mr. WARREN. You spoke of the propriety of the car riders in bulk paying for the service. When you say that, would you revise in any respect some of the elements of cost for which car riders now pay, such as paving streets, paying bridge tolls, paying for bridge repairs, cleaning streets, and so forth?

Mr. Sisson. I think a very effectual remedy could be applied immediately in many instances by relieving the companies of local public-improvement costs.

Mr. WARREN. As far as you can see, is there any reason why the car rider should contribute anything to the general highway expenses, more than an automobile rider or a truck rider?

Mr. Sisson. No; I certainly do not think so.

Mr. WARREN. The witness is at the disposal of the members of the commission, Mr. Chairman. I will be glad to have you ask any questions that may interest any members of the commission.

Commissioner SWEET. Have you any figures, Mr. Sisson, or a table prepared—or could you prepare one—that will show definitely the distribution of the holdings throughout the community?

Mr. Sisson. Yes. I have not such a table with me, but we could prepare a table that would give you a very good impression, although not entirely accurate, of where these security holdings are, how much of them are in the institutions—

Commissioner SWEET. Indirectly, we have been informed by other witnesses that a great many street-railway bonds, and I think also some stock, are owned by widows and orphans, or more than by trustees.

Mr. Sisson. Yes.

Commissioner SWEET. And that the impression, which is rather broadcast in the community, that the holders of these bonds are wealthy people, is entirely a mistake. Is that true or not?

Mr. Sisson. I think that is true without question. There are a great many of these securities in the hands of institutions. Life insurance companies and savings banks are holders of the bonds, in very large figures. Aside from that, these securities are very largely in the hands of the small investors. It was a class of security at the time it was offered, which attracted the least conservative of investors because of the somewhat higher yield they gave over the prevailing security offerings at that time and, as a rule, they were very widely distributed to many comparatively small buyers.

Commissioner SWEET. At the time when the 5-cent fare was originally agreed upon, apparently, between the cities and the public-service corporations, in the granting of the franchises, that was sufficient pay for all necessary expenses and a fair return upon the investment, was it not?

Mr. Sisson. It was.

Commissioner SWEET. And, in some cases, I suppose, rather a large return?

Mr. Sisson. Yes.

Commissioner SWEET. And that naturally offered an inducement to investors?

Mr. Sisson. Yes.

Commissioner SWEET. So that institutions like insurance companies and people in a fiduciary relation representing an aggregation of comparatively poor people, invested in them because they paid well and were looked upon as exceedingly safe?

Mr. Sisson. Yes.

Commissioner SWEET. Is that a fact?

Mr. Sisson. It is so. The popular selling argument, and one very generally used in those days, was that you could count upon the revenue-producing power of utilities of our great cities more definitely than you could upon any other class of securities.

Commissioner SWEET. Up to about what time did that condition continue?

Mr. Sisson. It existed until about the outbreak of the war. I should say when the recent rise in the cost of labor and materials overtook the revenues—perhaps beginning with 1915.

Commissioner SWEET. Has the change been gradual?

Mr. Sisson. It was rather abrupt. I think it has been staccato, rather than gradual, in many instances, but it has been constant for four years.

Commissioner SWEET. Is it as great to-day as it was three or four months ago?

Mr. WARREN. No, it is not; although there are still rising costs in labor and there are rising costs in material that must be met in many instances, but the ratio of increase is smaller to-day than it was before.

Commissioner SWEET. How do you account for that?

Mr. Sisson. Well, largely because the costs of labor and material both have almost reached the breaking point, and it was not possible for them to increase ratably as much as they had for the last three years and still find a market.

Commissioner SWEET. Do you mean to say then that there is an increase up to the present time?

Mr. Sisson. Yes.

Commissioner SWEET. But that the rate of increase has been somewhat less in the last few months?

Mr. Sisson. Yes.

Commissioner SWEET. But that the point reached at the present time is the high-water mark?

Mr. Sisson. Yes. Up to this point; yes.

Commissioner SWEET. In your judgment, what is the prospect for the future?

Mr. Sisson. I think you will find still higher costs of material and higher cost of labor. I think we will have to reckon with them for an indefinite period of time.

Commissioner SWEET. The remedy you have suggested is higher fares?

Mr. Sisson. Yes.

Commissioner SWEET. Are you not aware that in some cases where it has been tried it has resulted in a loss of patronage?

Mr. Sisson. Yes; I am.

Commissioner SWEET. Do you think that a temporary condition?

Mr. Sisson. I should say that that was exceptional and temporary, because it is not sound economic law, as I understand economic law.

Commissioner SWEET. Do you think that may be the result of a sort of temporary resentment on the part of the public?

Mr. Sisson. Yes, I do; but, in any event, an adjustment would sooner or later be made on the equipment and extensions, and so forth, to meet the public demand, whatever it was.

Commissioner SWEET. If the public were better informed as to the causes, and realize that the present situation is not in any sense the result of mismanagement or dishonesty, the public would be more willing to accept the situation and pay higher fares; would it not?

Mr. Sisson. Unquestionably.

Commissioner SWEET. What, in your judgment, ought to be the method of raising fares? Who should have the right to determine what the fares should be?

Mr. Sisson. Of course, the laws affecting that matter are so different in the different States that it is rather hard to generalize. Where there are efficient public-utility commissions in the States, it seems to me that that power should rest with them as the agencies of the legislature from whom the power springs, and that they should regulate fares to meet the current situation, whatever it is.

Commissioner SWEET. Have you not already said that some of these commissions were of rather narrow gauge?

Mr. Sisson. I have; and for that reason it is all the more necessary that the public be informed, and that such a commission as your own aid in that operation—if I may be pardoned for suggesting it—which I believe is the basis for proper action to follow. I have enough faith in the American people to believe that when they understand a thing and that understanding is based upon an impartial investigation, or through their political agencies, they will have the wisdom to put it on the right basis.

Commissioner SWEET. Do you think it is in the power of this commission to perform a valuable public service in the way of recommending what ought to be the general policy of the municipalities of the country on this subject?

Mr. Sisson. I certainly do, sir. I think there is a great opportunity—a great duty, I might add.

Commissioner SWEET. And is that duty, in your mind, restricted to the corporations themselves?

Mr. Sisson. Do you mean—

Commissioner SWEET. I mean the private corporations engaged in the street-railway business.

Mr. Sisson. No; I should say that your chief duty lay in advising and informing public bodies in relation to it.

Commissioner SWEET. For whose benefit?

Mr. Sisson. The benefit of the public. I am willing to put this whole matter on the flat basis of public interest, because it has fundamental public interests.

Commissioner SWEET. Then from your viewpoint the chief benefit that might be derived from a proper understanding of this subject and a proper recommendation on the part of this commission would be to the public, rather than to those who are conducting the business?

Mr. Sisson. I certainly do, sir.

Commissioner SWEET. Or the investors?

Mr. Sisson. Yes.

Commissioner SWEET. In order that the street-railway business may be prosperous, is it essential that new capital should be added continuously?

Mr. Sisson. Yes, sir; without question—constantly. As the country grows its demands grow. New capital must constantly be sought to meet the local demands of some growing communities.

Commissioner SWEET. You are rather inclined to favor the zone system, are you?

Mr. Sisson. It seems to me to offer a fair solution; yes, sir.

Commissioner SWEET. Have you worked out in detail a plan for operating the zone system?

Mr. Sisson. I have not, but I have seen such plans in New York, but nowhere else.

Commissioner SWEET. Is it in operation?

Mr. Sisson. No. It is purely theoretical, on paper.

Commissioner SWEET. It has been tried in some places, has it not?

Mr. Sisson. It has been tried with great success, I understand, in London and in many other great European capitals. It has been tried successfully there.

Commissioner SWEET. Some witnesses that appeared before us have told us that where the zone system had been employed in Europe and in some parts of this country, I think, the tendency has been to build up the centers and to add to the congestion of cities rather than to properly distribute the population. Do you know anything about that?

Mr. Sisson. I have heard that argument made, and I recognize its soundness. I think perhaps that may be true, offset by decreased rentals and decreased cost of land. I think it would not be so valuable for vacant-land speculators, but I do not think the consuming public should have to bear that charge. In other words, the lower cost of living in the outlying sections ought to more than offset the increased fare to their business or industrial engagements, whatever they are.

Commissioner SWEET. The city burdens would be substantially the same, however, in the outlying districts as in the centers?

Mr. Sisson. Yes.

Commissioner SWEET. So far as taxation and matters of that kind are concerned?

Mr. Sisson. Yes.

Commissioner SWEET. It is only after you get beyond the limits of the city that you would find relief from those burdens, is it not?

Mr. Sisson. Yes.

Mr. WARREN. The assessments would be smaller, though; would they not, Mr. Chairman?

Commissioner SWEET. The assessments would be smaller, but the rate of taxation would be the same, I take it.

Mr. Sisson. Yes; of course that spreads over the city.

Commissioner SWEET. The zone system that you have in mind—will you kindly describe that so that we may have a little more definite idea of it?

Mr. Sisson. Well, I will not undertake to go into any great detail, any more than to say that it should be, in my judgment, based upon mileage. For instance, in the great city of New York a man can ride from Yonkers' city line almost and from Mt. Vernon's city line clean to Coney Island, nearly 30 miles, for 5 cents. Well, that is obviously a luxury that the public enjoys at the investors' expense to-day. It is not equitable; it is not good business. Now, if a system could be arranged whereby a man pays a 5-cent fare from the Yonkers city line to a given point and then is required to deposit another ticket for another haul, as is true in many surface systems, it would be only equitable and it would be a source of immense revenue to local traction lines.

Commissioner SWEET. It would not be practicable to bring the relation between service and compensation to an absolutely fine point in the way of equity, would it? For instance, a man who travels a single block, or two blocks, on a street railway would pay, under the conditions that exist, a nickel?

Mr. Sisson. Yes.

Commissioner SWEET. And the same for a dozen or more blocks or more?

Mr. Sisson. Yes.

Commissioner SWEET. Now, there a greater service would be rendered for the same compensation?

Mr. Sisson. Yes.

Commissioner SWEET. That can not very well be avoided?

Mr. Sisson. No; I do not see that that can be made accurate.

Commissioner SWEET. But your idea, if I understand it, is that zones might be established which might be equitable and just, and bring about a better relation between service rendered and—

Mr. Sisson. Cost.

Commissioner SWEET (continuing). And compensation for it?

Mr. Sisson. Exactly.

Commissioner SWEET. And that system would be desirable on the whole?

Mr. Sisson. Unquestionably, in our great cities—between cities.

Commissioner SWEET. And it would be more businesslike?

Mr. Sisson. Yes; there is not any question about that.

Commissioner SWEET. Do you see any other argument, except that of the distribution of population, against this plan?

Mr. Sisson. The argument of difficulty in collection, which is sometimes advanced, but I think that would be very easily overcome by mechanical methods.

Commissioner SWEET. The sale of a number of tickets would obviate the necessity of making change, would it not?

Mr. Sisson. Yes.

Commissioner SWEET. It has been said that if we had a different coinage, a 7 or a 7½-cent piece, or something of that kind, it would be of very great benefit in this matter. What is your opinion there?

Mr. Sisson. Well, I think if the dollar continues to depreciate in value, it will be necessary for us to have some intermediate coins, because, after all, these are simply tokens of exchange. They do not represent real value in themselves, to any extent.

Commissioner SWEET. No.

Mr. Sisson. And our old coinage system, based upon the dollar value of five years ago, does not meet the situation of to-day, in many instances.

Commissioner SWEET. It would avoid a certain amount of annoyance and inconvenience?

Mr. Sisson. Exactly.

Commissioner SWEET. Is it your opinion that the American people pay more attention to that annoyance than do Europeans?

Mr. Sisson. I think they do, yes. I think they do.

Commissioner SWEET. Do you think we are inclined to do things on a somewhat larger and more liberal scale, and we do not like what seems to be hair-splitting?

Mr. Sisson. Yes; I think that is true; and you need only see the situation in various parts of our own country. In California, for instance, for a good many years, the nickel was the smallest unit used.

Commissioner SWEET. Yes.

Mr. Sisson. You had to pay 5 cents for a newspaper, and 5 cents for anything—they never saw pennies out there—and everything from that point up. It was simply the custom of the community.

Commissioner SWEET. Do you think that is something that is inherent in the newer communities?

Mr. Sisson. I do. There is no question about that.

Commissioner SWEET. In regard to taxation, you said you thought certain forms of indirect taxation—like paving between the tracks, bridge tolls, bridge repairs, and that sort of thing—all of which are now borne by the street-railway companies, in many instances should be avoided—that that is a bad practice.

Mr. Sisson. Well, I think it imposes undue hardships upon the transit lines in many cases, and it might mean the difference between solvency and insolvency in many cases. It seems to me that when these lines are operating so near the danger line as they are, the community might very well afford to undertake those improvements at its own expense, rather than force the issue against the lines. Of course, that situation would vary in different communities. It is very hard to generalize about that.

Commissioner SWEET. In the period prior to 1915, when the business was reasonably prosperous, is it your opinion that the arrange-

ment that was made between the cities and the street-railway corporations for doing this paving and repairing, and so forth, was based upon the idea that they were getting it out of the companies themselves rather than out of the users of the railways?

Mr. Sisson. Unquestionably.

Commissioner SWEET. Was that at that time a correct theory?

Mr. Sisson. No; I think not, entirely.

Commissioner SWEET. Is its incorrectness, in your opinion, emphasized and increased very largely by present conditions?

Mr. Sisson. I certainly think so. It is fallacious.

Commissioner SWEET. Is there any doubt in your mind as to the fact that, under the conditions as they now exist, the continuance of this policy means placing an undue burden upon the users of the street railways?

Mr. Sisson. That is the exact effect of it to-day; yes, sir.

Commissioner SWEET. And if the fares are increased, and this system with regard to paving, bridge tolls, bridge repairs, and that sort of thing, should be continued, would it not be, in your judgment, exacting from the users of railways an unjust form of indirect taxation, which would be requiring that part of the community to pay for something that is used more by automobile owners in other parts of the community, which would be exempt from that form of taxation?

Mr. Sisson. That seems to be a very clear and obvious statement, sir. I do not see how anybody could escape that conclusion. It is certainly true in our large cities.

Commissioner SWEET. Is not that a very strong argument in favor of abandoning this sort of obsolete practice?

Mr. Sisson. It certainly is.

Commissioner SWEET. In your judgment, are the street-railway companies at the present time being managed efficiently?

Mr. Sisson. On the whole, I think they are. We as bankers, have just finished a very searching and thorough examination of the New York transit lines, entirely impartial and quite critical; and the reports that we get are most reassuring that, so far as the management is concerned, it is just as nearly efficient as it can humanly be made, and that I think is true of most of the high-grade lines throughout the country.

Commissioner SWEET. We had evidence yesterday from Mr. George, one of the receivers of the Pittsburgh Railways Co.—

Mr. Sisson. Yes.

Commissioner SWEET (continuing). That, after taking charge of the property; they reached the conclusion that the management had been both honest and capable.

Mr. Sisson. Yes; I think that is broadly true throughout the country of the lines with which I am familiar.

Commissioner SWEET. Have you any direct information on that point from the receivers of other companies, or in any other manner?

Mr. Sisson. Yes; particularly in New York City and Brooklyn, where that is the opinion of the receivers of all the companies there, I think I am safe in saying, and better than that, it is the direct finding of capable engineers who have made this analysis for the benefit of the security holders.

Commissioner SWEET. I assume that there may be instances of incompetency and possibly of dishonesty in some particular localities.
Mr. Sisson. Undoubtedly.

Commissioner SWEET. What is your judgment in regard to the business as a whole, whether it is managed with honesty and ability, and with an earnest desire to promote the interests of the general public, as well as of the investors?

Mr. Sisson. I think, from a very careful study of the situation, that it ranks above the average business in all those particulars.

Commissioner SWEET. You do?

Mr. Sisson. I do. I might say in that connection, because of the necessities of their situation.

Commissioner SWEET. Yes.

Mr. Sisson. In many cases, undoubtedly.

Commissioner SWEET. Have you any suggestion to make to this commission as to the practical method of getting into the minds of the general public the situation as it exists, and as you see it?

Mr. Sisson. Well, I could not go into great detail, but I should think that an authoritative report from you, based upon your analysis of the situation, recommending a certain attitude and course of action on the part of the public and their political agencies, would have a very farspread effect in remedying the situation throughout the country.

I do not know the scope and limit of your authority in the matter. I did not see what the nature of the appointment was, but I assume your findings will be only recommendations. However, I am very sure that they will have a very immediate effect in the making of public sentiment, which is the underlying necessity in the whole situation, because, sooner or later, public sentiment is reflected in legislative and regulative action.

Commissioner SWEET. The present attitude of the public upon this subject is a sort of inheritance, is it not?

Mr. Sisson. Yes; it is in part justified and in part the blind, unreasoning ignorance of self-interest. It is justified in a measure by some bad practices—bad financial practices and operating practices in the past that have aroused resentment, and proper resentment, but from which the public has reacted to a point of antagonism that is just as unfair and unwarranted and unjustified as the actions which they themselves have criticized.

Commissioner SWEET. Who are the chief sufferers because of that mistaken view?

Mr. Sisson. Of course, the security holder, primarily, and the traveling public in the next place.

Commissioner SWEET. Does it not have an effect upon the general prosperity of the country—are not all the people of the country more or less affected by it?

Mr. Sisson. Unquestionably, because so large a portion of the public is interested, directly or indirectly, in the problem.

Commissioner SWEET. As an investment banker, would you know if the custom of issuing bonus stock or putting water, as the people say, into stock is now in vogue?

Mr. Sisson. It is not.

Commissioner SWEET. Do you know that it is not?

Mr. Sisson. I know that it is not, in companies of that character.

Commissioner SWEET. Yes.

Mr. Sisson. It is still frequently used in industrial flotations of various sorts. Public sentiment has not reached that point apparently, yet; but the public utilities—the railways and matters where the public interest is alive, that practice has not been in vogue in regard to them for a long time.

I might say in further explanation of that, that in the development of any new industry, like a railway or public utility, the investment banker very often finds it necessary, in order to secure direct investment in the obligations of the company, to give a profit-sharing interest in the future of that company, in the form of a stock bonus, in order to induce investment. Where these things are hazard, their profit earning is all estimated as a matter of guess work; the speculative possibility in the situation is the only thing that attracts the investor, and stock bonuses have been given simply to make the direct offering attractive.

Commissioner SWEET. The way in which that has been done has been by giving a certain amount of stock?

Mr. Sisson. Of common stock.

Commissioner SWEET. Of common stock?

Mr. Sisson. With the bonds.

Commissioner SWEET. To the purchaser of the bonds or preferred stock?

Mr. Sisson. Exactly. I might go further and say that it is my judgment that this country would not have been built up and we never would have had our railways and public utilities if that financial practice had not been pretty general throughout the days of promotion and creation.

Commissioner SWEET. In order to get new capital to invest in street-railway enterprises—

Mr. Sisson. Exactly.

Commissioner SWEET (continuing). There must be some reasonable assurance of a fair rate of interest upon the investment?

Mr. Sisson. Yes.

Mr. SWEET. And a reasonable certainty of return on the capital investment?

Mr. Sisson. Exactly; absolutely.

Commissioner SWEET. No one could possibly deny that proposition?

Mr. Sisson. No.

Commissioner SWEET. Now, can you suggest any definite and distinct and practical method by which that may be accomplished?

Mr. Sisson. Well, of course, very obviously by an expression of public sentiment through regulating bodies—that would assure a reasonable earning power.

Commissioner SWEET. Have you considered the service-at-cost plan, as it is called?

Mr. Sisson. It would seem to me that that margin would be too narrow to attract investors, as a rule. They would like to have a surplus, a sinking fund, and a margin of earnings above that, if they had their say in the matter.

Commissioner SWEET. Does the service-at-cost plan necessarily limit the return that should be allowed on the capital invested?

Mr. Sisson. It does not necessarily, but, of course, it might do so. Commissioner SWEET. Or, if it does it, would it be limited at a point to attract investors?

Mr. Sisson. That would be the danger.

Commissioner SWEET. Suppose it were not. Suppose a 6 or $6\frac{1}{2}$ or 7 per cent rate were understood to be a reasonable amount?

Mr. Sisson. I think that would be very attractive to the average investor.

Commissioner SWEET. What percentage do you think would be necessary?

Mr. Sisson. Well, I should say on bonds that the investor would not be satisfied with less than 5 per cent earnings on street railways, and not less than 6 per cent upon stock. I mean actual stock.

Commissioner SWEET. Common stock?

Mr. Sisson. Common stock; but he would like 8 or 9, and in the ordinary attitude of the investor and banker toward the question, in my judgment, it should not be less than 7, and ought to be 8; but I assume the whole situation would be stabilized if he knew he got anything above the 6 per cent return.

Commissioner SWEET. Do you think a guaranty of 5 per cent on bonds would be sufficiently attractive to investors to meet the needs of the companies at the present time?

Mr. Sisson. Well, the guaranty—do you mean by that to limit it to 5 per cent?

Commissioner SWEET. Yes.

Mr. Sisson. To assure them of 5 per cent?

Commissioner SWEET. To assure them of 5 per cent, and not more.

Mr. Sisson. Yes; I think—

Commissioner SWEET. On bonds.

Mr. Sisson. I think the public-guaranteed bond on a 5 per cent offering would be attractive to-day.

Commissioner SWEET. Do you think such bonds could be floated at the present time?

Mr. Sisson. It would depend a good deal upon the nature of the guaranty, upon the size of the community, and the political character of the Government. Money rates are higher than that to-day. Five and a half per cent is the existing rate on money to-day, and my own judgment is that money is going higher. The demand for capital is so great that it seems to me inevitable that it will be forced up, and that while a guaranteed governmental obligation, like our own United States obligation, can be sold at better than 5, it would have to be of a very sound character to be attractive at 5; but it would be attractive on a sound guaranty. If the city of New York or the State of New York guaranteed its corporations 5 per cent, the securities could be sold, and they would be attractive to investors.

Commissioner SWEET. Do you see anything inconsistent with a guaranty, or what would amount to a guaranty of that kind, in the cost-of-service plan?

Mr. Sisson. No.

Commissioner SWEET. Service at cost, I think it is called.

Mr. Sisson. No; I do not. My own theory is that if we get into the guaranty field, we are encroaching so closely upon the field of public ownership that sooner or later we will step over the line into it, and with an assurance of a reasonable earning power to be dis-

tributed by the owners of the roads through fixed charges and labor charges and material charges, in accordance with their own necessities and judgment, is a much more businesslike way to leave the situation than to provide for fixed guarantees. But perhaps that is not possible. If it is not, I would approve the guaranty.

Commissioner SWEET. Would it not be feasible for a State commission, for instance, to fix a tentative rate and then, later on, have an adjusting scale? If the rate fixed in the start did not produce the fixed income to meet the needs of the companies and the investors, would it not be feasible that automatically or by further action of the State commission, a slight increase should be made, and so on, until a point were reached where the property would be preserved in at least as good condition as it was when taken, necessary extensions made, investors properly compensated, and business go on profitably?

Mr. Sisson. I think that is entirely feasible.

Commissioner SWEET. That would be feasible, would it not?

Mr. Sisson. It would be feasible, and most desirable.

Commissioner SWEET. Would not a somewhat elastic arrangement of that kind really meet the situation better than merely a range of $7\frac{1}{2}$ or 8 or 9 cents?

Mr. Sisson. It would be much more scientific.

Commissioner SWEET. Yes.

Mr. Sisson. It would depend only, I might add, upon the intelligence and broadmindedness of the regulating commission which, in many instances, undoubtedly, would be equal to the situation.

Commissioner SWEET. You can not entirely exclude the human element, could you, from any arrangement of that kind?

Mr. Sisson. Nor the political element.

Commissioner SWEET. No. The success of any plan that may be adopted would depend very largely, would it not, upon eradicating from the public mind the prejudices that have existed?

Mr. Sisson. Exactly.

Commissioner SWEET. And bringing about a better cooperation between the companies and the public. And the common councils and representatives of the public.

Mr. Sisson. Yes.

Commissioner SWEET. By making the people realize what is the fact—that their own prosperity depends largely upon the maintenance of this service.

Mr. Sisson. Exactly. It may be necessary, in order to secure that, to establish some sort of community of interest between the corporation and the public, whereby earnings above a certain figure revert to public uses. That might put an automatic check upon too high a fare. I am really skeptical of that profit-sharing arrangement, as it has not worked successfully in all places where it has been applied; but, theoretically, I think anything that establishes a community of interest and a community of understanding between the owners and users is to be desired.

Commissioner SWEET. Will you explain that a little more definitely?

Mr. Sisson. Well, you are familiar, undoubtedly, with the systems that are in vogue in several cities in this country, where there is a provision for a division of profits between the city and the corporations beyond a fixed return to the corporation.

Commissioner SWEET. We ask some questions of this kind in order to make the record more complete.

Mr. Sisson. Yes.

Commissioner SWEET. And if you will just explain it so that a person—the average man in the community on reading it—will get a clear apprehension of what you have in mind, it would be better than it would be to appeal to the members of the commission upon their own information.

Mr. Sisson. Yes. Well, that plan is theoretically perfect, but it has not always been practically successful.

Commissioner SWEET. Well, just give us what that plan is.

Mr. Sisson. To provide that the fare shall be such as is mutually agreed upon, and that any return to the corporation above a certain fixed return to be agreed upon shall be divided on some basis between the city and the corporation. That ought to prejudice public sentiment in favor of the corporation, as it is an institution in which they have an interest.

Commissioner SWEET. It ought to remove prejudices against the corporation?

Mr. Sisson. Now, I am sorry to say that that has not been true in all instances where it has been tried, but I believe that it is still worth a trial, and that the sound theory that is presented by it has not yet been disproven by its failure in instances to secure that result. Personally, I believe very thoroughly in the profit-sharing plan.

Commissioner SWEET. But, Mr. Sisson, don't you think that this objection might be raised to that plan—that whatever is the share of the general public in those properties, would simply reduce general taxation?

Mr. Sisson. Yes.

Commissioner SWEET. And during the following year would be somewhat lessened by reason of receiving their share; is not that true?

Mr. Sisson. Yes.

Commissioner SWEET. Would not that, then, be removing from the general public a part of the burden of taxation and placing it entirely upon the users of the railways?

Mr. Sisson. Unquestionably.

Commissioner SWEET. Would that be a just arrangement?

Mr. Sisson. No; not entirely, except on the theory that a large proportion of the general public are users of the utilities; but the point is well taken.

Commissioner SWEET. What portion of the public is it that does not use the street railways, or that use them the least? Can you tell us what that is?

Mr. Sisson. Well, it is being relieved, of course, from a portion of taxation.

Commissioner SWEET. Well, what portion of it is it? Is it the richest or poorest, or what part of the community is it that uses the street railways the least?

Mr. Sisson. I think it would be a portion of both extremes.

Commissioner SWEET. A portion of both extremes?

Mr. Sisson. Yes, sir; the poorest and the richest.

Commissioner SWEET. The people who have no property to tax, and the people who have the most property to tax.

Mr. Sisson. Yes.

Commissioner SWEET. Is that right?

Mr. Sisson. Yes, sir; absolutely.

Commissioner SWEET. The one not having the nickel, and the other having an automobile?

Mr. Sisson. Exactly.

Commissioner SWEET. Very well. Now, the people that do use the street railways most would be paying a fare that was higher than actually necessary.

Mr. Sisson. Yes.

Commissioner SWEET. A part of the general burden that ought to be borne by the whole community.

Mr. Sisson. Yes; undoubtedly.

Commissioner SWEET. And the users of automobiles, at least, get the benefit of this saving and street improvements and all that sort of thing that would be thrown largely upon the users of the railways; would they not?

Mr. Sisson. Yes; that is a perfectly sound argument. The only defense for the other theory is that it might help establish a better feeling towards the property, which would be reflected in the general community good, but it should not be necessary. In other words, I think the more we can avoid paternalism in the treatment of this business, the better it will be, not only for them but for the community as a whole.

Commissioner SWEET. Would not the remedy in all cases of that kind, where a surplus was produced, better be handled by reducing the rates?

Mr. Sisson. Yes; that could be done.

Commissioner SWEET. To the lowest point consistent to its producing the necessary amount of income?

Mr. Sisson. Yes.

Commissioner SWEET. That would be the nearest to absolute justice to the whole community; would it not?

Mr. Sisson. It certainly would.

Commissioner SWEET. And the profit-sharing device—don't you think it has in it a sort of element seeking to get the favor of people by deceiving them?

Mr. Sisson. It is begging the question, I frankly agree; yes, sir—perhaps not deceiving them as much as throwing a sop to them, I should say.

Commissioner SWEET. Well, making them feel that they are getting something for favoring the system.

Mr. Sisson. Yes.

Commissioner SWEET. Without really a basis of justice in it.

Mr. Sisson. You are quite right. I definitely agree with you.

Mr. WARREN. It is another form of paving taxes, really, is it not?

Mr. Sisson. Yes. It has some color—

Commissioner SWEET. And the bridge tolls and the fares and the cleaning of the streets, where it is required of the companies?

Mr. Sisson. Yes.

Commissioner SWEET. All those things would come under that same objection?

Mr. Sisson. Absolutely.

Commissioner SWEET. I think that is all. Mr. Meeker, have you any questions?

Commissioner MEEKER. You spoke of the practice in financing street railways in times past whereby stock was issued, not for a money payment, but as an inducement, as a bonus, to bond buyers. Do you think the street railways now represent in their physical properties value equivalent to the outstanding bonded debt and stock?

Mr. Sisson. Well, I can not speak accurately about that. I should be surprised if they, under their present earning power, represented value equivalent to their entire capitalization.

Commissioner MEEKER. I did not catch your answer.

Mr. Sisson. I say I should be surprised, if under their present earning power—because earning power determines value—I should be surprised if their value equaled their capitalization. I do not believe it does, including stocks and bonds.

Commissioner MEEKER. When you speak of value, do you mean the value of the physical property?

Mr. Sisson. No; I was speaking broadly of their whole value, because it is the entire value that is capitalized. For instance, franchise values are capitalized and are taxed in New York State definitely as property, and in other places, I have no doubt, and are distinct value, provided there is earning power to warrant it. The taxation of franchises in New York State was based upon the theory that earning power derived from franchises was a legitimate source of public taxation. Now, if that earning power does not exist, the value does not exist. In other words, common-stock values in most street railways were based upon franchise values and earning power, and not upon physical values. I do not believe the physical values of the railways, while I am sure it is greater than the bond obligations, has yet reached the point where it absorbs stock obligations.

Perhaps I can give you a better analogy of it in the railroad field. One of the great public fetiches to-day is that railroad stocks are watered, but the sober fact is, as any student of the situation can determine, that the probabilities are that the physical value of the railroads to-day is something like \$1,500,000,000 in excess of the capitalization. That was not true 25 or 30 years ago, but out of earning power the railroads have put back into the property, year after year and year after year. For instance, the Pennsylvania has put back something over \$300,000,000 out of earnings into property values. The New York Central lines built their Chicago terminals out of the surplus earnings on the Lake Shore, and that has been true of many of the big railroad lines. To a lesser degree that is true of the street-car lines, but they have not yet reached the point where they have absorbed their overcapitalization, if you may call it such.

Commissioner MEEKER. What, in your opinion, should be done with investments out of earnings in that fashion? Are they the property of the street-railway companies upon which they are entitled to a reasonable return?

Mr. Sisson. In my judgment, yes, because that is the practice in every business in the world, and I do not know any reason why investors in street-railway securities should be discriminated against.

It is true of every industrial activity. Henry Ford starts a factory with a few thousand dollars, and to-day he is worth hundreds of millions out of earnings, and we all pat him on the back and say, "A wonderful job."

Mr. WARREN. And buy Ford cars without any protest.

Mr. Sisson. Yes, sir; and pay the price that enables him to make those profits; and I do not know of any reason why we should discriminate against our public-service corporations for having, in their limited way, done what the industrial corporations and financial institutions and every other class of business do without protest. In other words, it is the legitimate reward that comes to business venture. That has been true according to all of the old theories of doing business. We may change that in the future.

Commissioner MEEKER. You think that public opinion has not changed in reference to public utilities?

Mr. Sisson. I think it has to a certain extent. I think it has been becoming definitely socialized in a great many places.

Commissioner MEEKER. It was not quite clear to me whether you believed in a guaranty of a fair return upon a fair valuation of the whole property of the street-railway company or not?

Mr. Sisson. I believe in a guaranty if they can not get an assurance of earning power in any other way. I think the less paternalism, the less operating guaranties that we have in any of our public utilities, the better; but if it is not possible to adopt such plan as your chairman indicated there, by which an assurance of earning power is given, and arranged scientifically up and down to meet the costs and the needs of the situation, then I am frank to say that I think a guaranty is the only thing that will attract the investor.

Commissioner MEEKER. Do you think a guaranty of a minimum earning might be made, with freedom to make more than a minimum earning?

Mr. Sisson. That would be somewhat more attractive.

Commissioner MEEKER. More attractive to the investor; but would you advocate that as justice to the public?

Mr. Sisson. Well, I should say that if that was kept within reasonable limits yes.

Commissioner MEEKER. That is a minimum and a maximum fixed?

Mr. Sisson. A minimum and a maximum; yes.

Commissioner MEEKER. What would do in the case the earnings exceed the maximum?

Mr. Sisson. Well, you would have two alternatives: An elastic system of regulation, which would reduce the rates to take up that slack, or a profit-sharing plan, which would turn it over to the public treasury.

Commissioner MEEKER. It was not entirely clear to my mind which of those alternatives you would prefer.

Mr. Sisson. I would prefer the business alternative of regulating the rates to meet the situation, if it were possible to do so scientifically. That assumes an intelligent and sympathetic regulating board which, I am sorry to say, is not always possible in American politics.

Commissioner MEEKER. A true service-at-cost plan would take cognizance of all costs of service, would it not?

Mr. Sisson. Yes.

Commissioner MEEKER. It would necessarily provide for a solvent concern instead of an insolvent concern; all of the legitimate expenses of conducting the business must be taken care of.

Mr. Sisson. Yes.

Commissioner MEEKER. Under any cost-of-service or service-at-cost plan?

Mr. Sisson. Yes.

Commissioner MEEKER. That deserves that name?

Mr. Sisson. That is right.

Commissioner MEEKER. And with that reasonable interpretation of the service at cost you would be in favor of such a plan?

Mr. Sisson. I would.

Commissioner MEEKER. That is, with no fixed fare of 5 cents or 7 cents or 10 cents?

Mr. Sisson. Exactly.

Commissioner MEEKER. But the fare to be fixed according to the earnings?

Mr. Sisson. Exactly. I think that would be very desirable.

Commissioner MEEKER. I came in late, unfortunately. Are you in favor of local regulation by municipalities? You are in favor of regulation?

Mr. Sisson. Yes. No; I think that State regulation is on the whole much fairer.

Commissioner MEEKER. Should there be a combination, perhaps, of local and State?

Mr. Sisson. Well, suffering as they are in New York City right now, I would prefer that there be no combination; but perhaps it is only fair to the community that they should have something to say.

Commissioner MEEKER. I am not entirely familiar with the New York situation. Will you elucidate the situation there?

Mr. Sisson. In New York to-day, we have a conflict of authority between our board of estimate, which includes the mayor and his immediate associates in power, and our State authorities. They have been at loggerheads there for a year, with the result that nothing has ever been done; no relief given and bankruptcy after bankruptcy has followed. Now, if there was power in either body to act independently of the other, I am sure that some change in the situation would have taken place long ago; but for a long time there we had a political conflict between the Republican public-service commission and the Democratic State administration and neither side was willing to yield to the other, which was most unfortunate to the interest of the public and security holders. That conflict still exists, although there are signs of relief there through the courts and through the more sympathetic attitude on the part of our governor. But whether or not they will reach the point of action only the future can develop; but it has been most unfortunate for New York City that that conflict has existed, in which rights of action have not been clearly defined.

Commissioner MEEKER. Your opinion then is that an undivided, single authority is to be preferred to any cooperative plan?

Mr. Sisson. Unless the right of ultimate decision is clearly fixed, I certainly think so.

Mr. WARREN. And made apparent.

Mr. Sisson. I think they might work out some advisory relationship or something of that sort, but I think there should be but one authority in a situation of that kind and that definitely fixed.

Commissioner MEEKER. I take it from the testimony that I have listened to that there have been unwise extensions and building of new lines on the part of street-railway companies. What should be done with those lines that have been unwisely built and those extensions that have been unwisely built?

Mr. Sisson. Well, broadly speaking, bad business ventures pay the penalty for bad guessing, in losses, and where there is no power of recovery from a clearly established public interest, I should say the men who put money in those properties would have to face the losses unless the public interest was such as made that inadvisable from the public viewpoint.

Commissioner MEEKER. Do you think it would be justifiable to abandon those lines to cut down the operating expenses?

Mr. Sisson. Yes.

Commissioner MEEKER. Well, do you think that the regulating body should have decision as to when extensions should be made—when and where—and when and where new lines should be built?

Mr. Sisson. I do, providing the arrangement is such as to furnish the credit by which those extensions can be made. In other words, I feel that if the regulating bodies are going to get on top of these utilities they must get underneath them, too. If they are going to fix their earnings, they must also establish credit.

Commissioner MEEKER. You spoke a moment ago about the desirability of having a definite single authority. Does that squint toward public ownership? Is it possible to have this public interest on top and underneath private companies in the street-railway business? Is it possible to work out any scheme of cooperation there, or is it best to give up the attempt and go back into public ownership?

Mr. Sisson. Well, that is a very vital question. My hope and belief is it is, but I am not entirely sure in my own mind.

Commissioner MEEKER. Your answer is not entirely clear to me.

Mr. Sisson. It is my hope and belief that it would be possible to work out a plan of regulation, which does not necessarily imply public ownership, but I am not entirely sure that it is. I frankly say that.

Commissioner SWEET. You think it ought to be tried first, anyway?

Mr. Sisson. I think it should be the first attempt—that we ought to do everything possible before we reach any conclusion that public ownership is inevitable, because in my mind I believe that political and economic tragedies would follow public ownership in this country that would be very disastrous.

Commissioner MEEKER. With minimum and maximum earnings practically guaranteed, what better would be private ownership under such a scheme than public ownership and operation?

Mr. Sisson. Well, you would avoid the chief objection to public ownership and operation, which is political ownership and operation, which inevitably piles up cost and reduces efficiency; and I can show you a long record of inefficient operation and multiplying

costs, which would have to be borne by the public and would be disastrous to the public interests as well as to the private interest involved.

Commissioner MEEKER. You are speaking of publicly owned and operated lines now?

Mr. Sisson. Yes.

Commissioner MEEKER. In what communities?

Mr. Sisson. Well, broadly speaking, in 85 or 90 per cent of the communities that have tried it. There are some exceptions, sir, but the whole record of public ownership and operation of public utilities has been that of multiplying costs.

Commissioner MEEKER. You are speaking of public utilities in general now?

Mr. Sisson. I am speaking of public utilities in general now, but it would apply in equal degree to the street railways. And perhaps in a greater degree to them than to some others.

Commissioner MEEKER. Why should it apply to the street railways in a greater degree?

Mr. Sisson. Because of their close contact with the public. Water power does not come in such close contact in the same way.

Commissioner MEEKER. It is easier to move water than it is to move an electric car?

Mr. Sisson. Yes, and there are not all the causes of daily irritation and delay.

Commissioner MEEKER. It is nowhere nearly as complicated.

Mr. Sisson. No.

Commissioner MEEKER. You were not speaking of the experiments abroad, were you?

Mr. Sisson. Well, I was, throughout the world.

Commissioner MEEKER. Throughout the world?

Mr. Sisson. Yes. There are some exceptions abroad, but those exceptions are, for the most part, marked by reasons that make them exceptions, that are very obvious.

Commissioner MEEKER. You expressed some doubt about the winning out of this cooperating scale between the public and private corporations.

Mr. Sisson. No; I should not say a doubt—a mental reservation. I said I hoped and believed it was possible, but I was not entirely sure.

Commissioner SWEET. Let me ask one question or two there, Mr. Meeker.

Have you found objection to municipal ownership of the water supply?

Mr. Sisson. Not extensively; no. There have been instances of objection and instances of marked failure on the part of the municipality but, on the whole, I think the ownership—the municipal ownership—of water stations has been efficient and desirable.

Commissioner SWEET. In addition to the points referred to, is it not true that the relationship between public health and the water supply is so direct that the city ought to have control of the water supply?

Mr. Sisson. I am inclined to think that that is true; yes.

Commissioner SWEET. Is it not also true that the need of water in public parks and cemeteries and for fire protection is a further reason for municipal ownership of the water supply?

Mr. Sisson. Yes.

Commissioner SWEET. And those are arguments that would not apply to street railways?

Mr. Sisson. Not at all. It is a different form of service entirely.

Commissioner SWEET. The first step toward a sort of qualified guaranty such as you have mentioned of a reasonable interest or dividend upon the investment is to find out what the investment is, is it not?

Mr. Sisson. Exactly.

Mr. SWEET. This guaranty ought to apply, ought it not, to present investors as well as future investors?

Mr. Sisson. Exactly.

Commissioner SWEET. Have you any suggestion to make to the commission as to a practical way of determining the amount upon which such a qualified guaranty should be based?

Mr. Sisson. Well, that is a rather difficult question. Of course it ought to be based upon the physical values of the properties, considering the cost reproduction. It ought to be based upon the franchise values and the estimated earning power upon which money was invested, as far as possible; and perhaps there ought also to be taken into consideration the average price of the securities which were sold to the public. I think perhaps all three of those elements ought to enter into any fair valuation.

Commissioner SWEET. Do you think the public ought to be asked to provide for a dividend upon the stock that was given away as an inducement to buy bonds?

Mr. Sisson. Within reason, yes; because those bonds would not have been sold unless that stock had been offered as an inducement.

Commissioner MEEKER. But in case the earnings have been put back into the plant until now the plant is valued either physically or taking the whole value as a going concern equal to bonds and stocks outstanding, you would hold that the public is obligated to pay a reasonable return upon the value of the bonds and stocks outstanding?

Mr. Sisson. I should say that is only fair and that it is good business. The alternative would have been very simple; assuming the board of directors, instead of putting that money back into the property had declared it out in dividends and the stockholders had it, the public would be powerless. But a board of directors who in their wisdom and foresight for the future put that back into the property ought not to be penalized in favor of a board of directors who paid it out to their stockholders in dividends.

Commissioner SWEET. Have you considered this phase of the question? In the early days you said the 5-cent fare more than compensated, so that we will assume in most cases their dividends were paid to the holders of common stock. And then the interest as agreed upon was paid upon the bonds or preferred stock. Now, if the 5-cent fare named in the original franchises produced more than enough to meet those requirements, so that a certain part of the nickel could be devoted to extensions, is not that evidence to your mind that the

nickel as it was originally agreed upon between the companies and the municipalities was more than it ought to have been?

Mr. Sisson. In some instances that is undoubtedly true; yes, sir.

Commissioner SWEET. Now, if in the future or under the present situation the public is to be asked to provide a direct or indirect form of guaranty upon profits from this time on, is it fair that the public should be asked to pay more or to allow more by reason of the companies having had the advantage in the earlier stages of this proceeding?

Mr. Sisson. I should say that is a matter of equity in which you could hardly make a flat ruling. I think there are instances when the public should allow those values to accrue to the stockholders. There may be instances where those values are greater than they ought to be in the public interest. I do not believe you could generalize on that subject, sir.

Commissioner MEEKER. That could be taken care of in the process of valuing the properties?

Mr. Sisson. Absolutely; and that is what I have had in mind.

Commissioner MEEKER. You think that is the way it should be taken care of?

Mr. Sisson. I do.

Commissioner MEEKER. And an equitable arrangement be made whereby this business, which is in a bad way now, can go on without obligating the public to pay more than it ought to pay?

Mr. Sisson. Exactly. I think that is a pure matter of equitable arrangement between the public and the owners in the fixing of values.

Commissioner MEEKER. I am a little afraid that heretofore in my questioning I have elicited answers that seemed to indicate that the street-railway companies now want the public to come to their assistance—that they are in such dire straits; but they do not wish any examination into what was done in the past, when they were possibly earning dividends upon watered stock, if you please, earning in excess of a reasonable return upon investment. Now, I take it that the street-railway companies do not wish any such impression as that—

Mr. Sisson. Certainly not.

Commissioner MEEKER. To be given in the hearings before this commission.

Mr. Sisson. Certainly not. I think the general disposition of the street-railway companies and their owners is to lay all the cards before the public and to put it up to the public as their business primarily and as a public property.

Commissioner MEEKER. It seems to me you have indicated the way in which an equitable agreement can be reached as between the public and the street-railway corporations. The all-important thing as I see it is in the arriving at a proper estimate of the value of the properties upon which the street railways are entitled to earn a reasonable return.

Mr. Sisson. Exactly.

Commissioner MEEKER. That is the all-important thing, is it not?

Mr. Sisson. Exactly so; yes, sir.

Commissioner MEEKER. There are two other questions I would like to ask. You spoke of the principal objection to public owner-

ship being the political control. Under private ownership there has not been absolute freedom from political maneuvering—

Mr. Sisson. That is unfortunately true.

Commissioner MEEKER. But in your experience you think that the evil would be greater under public ownership than under private ownership?

Mr. Sisson. That has been the experience of a majority of the communities throughout the world who have tried it, as the record very clearly shows.

Commissioner MEEKER. The only way that could be brought about—

Mr. Sisson. I might cite a very extreme instance in Australia or New South Wales, where they took over the railroads. In the course of a few years' time the railroad employees became so powerful politically that they were controlling the affairs of the Dominion, until finally the shippers and farmers arose in righteous wrath and dis-franchised all railroad employees in order to get political control back into the hands of the people.

Commissioner MEEKER. I do not want to go to Australia—

Mr. Sisson. That was an illustration of the extreme operation of that sort of thing.

Commissioner MEEKER. Let us take nearer at home—

Mr. Sisson. Well, I did not want to make it offensive, so I went to Australia.

Commissioner MEEKER. Are you personally acquainted with any street-railway enterprise that is owned and operated by the public in this country?

Mr. Sisson. In a general way I have studied the situation, yes.

Commissioner MEEKER. And it is your experience that in this country, no matter what they may do abroad, public ownership results in greater evils?

Mr. Sisson. It certainly does.

Commissioner MEEKER. And greater inefficiency than private ownership?

Mr. Sisson. Yes. I would be glad to submit to the commission, if they desire, a pamphlet we prepared in New York last winter on this same subject for the merchants' association, in which many instances are cited and a complete background of facts and statistics is given for that conclusion.

Commissioner SWEET. We would be glad to have it.

Mr. Sisson. I will be glad to send it in.

Commissioner MEEKER. As I see it, the only way by which we can have private ownership without the evils that have existed in times past and which are admitted, I think, by the street-railway men themselves—the only way by which we can have private ownership of street railways without those evils is for the street railways to open their books, to make known all their operations and submit to public control.

Mr. Sisson. Yes.

Commissioner MEEKER. And you think that publicly controlled private corporations can conduct the street-railway business better than publicly owned and operated concerns can?

Mr. Sisson. I certainly do.

Commissioner MEEKER. Just another question in regard to public health. The street railways themselves are very intimately connected with the public health, are they not?

Mr. Sisson. Yes; to some extent, and with the public comfort to a very large extent.

Commissioner MEEKER. Public comfort is just another name for public health, as I take it.

Mr. Sisson. Yes.

Commissioner MEEKER. And I have not merely in mind the health of individuals riding in the street-cars themselves, but the street-cars enable the population to be distributed more widely.

Mr. Sisson. Yes.

Commissioner MEEKER. So that the people may live in better houses.

Mr. Sisson. Yes.

Commissioner MEEKER. So that there is distinctly a public interest in properly conducted rapid-transit street railways.

Mr. Sisson. Unquestionably.

Commissioner MEEKER. Which is only less important than their interest in a pure-water supply.

Mr. Sisson. Exactly.

Commissioner MEEKER. I just wanted to bring that point out.

Mr. Sisson. Yes; an interest which warrants public regulation, without any question.

Commissioner GADSDEN. Mr. Sisson, do you know how many municipal street railways there are in the United States?

Mr. Sisson. I can not tell you right offhand.

Commissioner GADSDEN. As a matter of fact, are they not limited to two, one in San Francisco and one recently organized in Seattle?

Mr. Sisson. Of course there is municipal collusion in a number of other instances.

Commissioner GADSDEN. But, municipally owned, there are only two?

Mr. Sisson. Yes.

Commissioner GADSDEN. And Seattle is a matter of only three or four months?

Mr. Sisson. Yes. Those are the only large ones I know of.

Commissioner GADSDEN. So that we have not any real municipally operated experience to rely on in this country?

Mr. Sisson. Not that I know of.

Commissioner GADSDEN. Do you consider that the present condition of the electric railways in this country has been brought about by watered stock?

Mr. Sisson. No; I do not think it has had anything to do with it.

Commissioner GADSDEN. Can you conceive how the present economic situation which faces electric railways could have been produced by their issuing watered stock in times past?

Mr. Sisson. I do not think it has had the slightest effect on the present situation. If they had no stock issues at all the situation would be the same.

Commissioner GADSDEN. Exactly. As a matter of fact is not the situation which faces electric railways a question of getting enough revenue to operate?

Mr. Sisson. Absolutely; to pay their costs and pay the money charges, unquestionably.

Commissioner GADSDEN. Are not they faced with a situation which has practically for the moment wiped out all the value?

Mr. Sisson. Absolutely.

Commissioner GADSDEN. Bonds and stocks?

Mr. Sisson. In many instances.

Commissioner GADSDEN. Many instances of it?

Mr. Sisson. Yes.

Commissioner GADSDEN. So that the bad financial practices—if we choose to so characterize them—in the past can not be held responsible for the present situation, in your judgment?

Mr. Sisson. Only in so far as they have been used as a text for the opponents of street railways to create agitation and public prejudice.

Commissioner GADSDEN. To prejudice the public mind?

Mr. Sisson. Yes; which has been done very extensively in certain communities.

Commissioner GADSDEN. But economically they have not had any effect?

Mr. Sisson. As a matter of economics, not at all.

Commissioner GADSDEN. On this question of the right of a corporation to put back into the property its earnings, whether excess or not, and the question of whether that belongs to the stockholder or the public; supposing for a moment that we adopt the economic theory that those excess earnings reinvested in the property belong to the public; would it not be equitable and just, if that is a sound economic theory, that the public should make good to the corporation any deficits of earnings in bad times?

Mr. Sisson. It certainly would. If they are to take all the profits they ought certainly to bear the burden.

Commissioner GADSDEN. In other words, ought not the rule to work both ways?

Mr. Sisson. Certainly.

Commissioner GADSDEN. And therefore if the public is now going to claim the excess profits reinvested in these properties in times past, should not the public within the last two or three years have held the bag?

Mr. Sisson. They certainly should. As I said a little while ago, if they are going to get on top of these properties, they ought in justice to get underneath them.

Commissioner GADSDEN. Would it be fair for the public to claim these excess earning values in property and at the same time allow these properties to go into bankruptcy?

Mr. Sisson. It certainly would not.

Commissioner GADSDEN. That is not only good economics but it is good morals; is it not?

Mr. Sisson. It certainly is. I might add that I had a letter only a few days ago from a Member of Congress, in which he asked the question as to why it was proper for the public authorities to offer any sort of a guaranty to public utilities any more than to any other sort of business. Well, the answer is perfectly obvious, because public authorities regulate their earning power. If public utilities were allowed to charge as they pleased for the service rendered, they would ask no greater odds than any other business. But when they

are limited as to earning power, it is right and proper that they should have some assurance as a guaranty.

Commissioner GADSDEN. In a practical way is not that just what the United States Government has done to the steam railroads during the war?

Mr. Sisson. Yes.

Commissioner GADSDEN. And failed to do for the electric railways?

Mr. Sisson. Exactly.

Commissioner GADSDEN. Do you know of any other public-service industry except the street railroads which has been left to take care of itself under war conditions?

Mr. Sisson. I assume that is true of electric lighting.

Commissioner GADSDEN. But aside from the street-railway, gas, and electric companies?

Mr. Sisson. No, I do not. There has not been any other.

Commissioner GADSDEN. Telephone, telegraph, and steam railroads—

Mr. Sisson. All of them, and shipping.

Commissioner GADSDEN. The Government has got both on the top and bottom, as you say?

Mr. Sisson. Absolutely.

Commissioner GADSDEN. Is there any reason in the nature of the business why railway companies and electric properties should not have the same consideration from the public as telephones, telegraphs, and steam railroads?

Mr. Sisson. Well, the only distinction that should be made, I assume, is the one that the Government has made, that these Federal utilities serve a war purpose directly which the others do not; they serve a local purposes rather than national purposes.

Commissioner GADSDEN. Was not the distinction, on the contrary, that these other utilities were engaged in interstate commerce and therefore came directly under the province of the Federal Government and the Federal Government could act?

Mr. Sisson. Yes.

Commissioner GADSDEN. Whereas these gas and electric-railway companies, not coming within the purview of the Federal administration, it could not assist them?

Mr. Sisson. Yes, I think that was undoubtedly the view taken, and that was their limitation. I think it is proper to say that the Federal Government gave indication many times of the desirability of local authorities doing that.

Commissioner GADSDEN. As a matter of history in connection with electric railways, do you know of many electric railways which have been sufficiently prosperous in the past to reinvest surplus earnings in property?

Mr. Sisson. Not extensively, no; to a limited extent.

Commissioner GADSDEN. Which road—

Mr. Sisson. Not nearly so prosperous, for instance, as steam railroads.

Commissioner GADSDEN. Yes. Is it not approximately true and correct to say that if electric railways had set up a proper depreciation from the beginning that it is questionable whether the 5-cent

fare was ever a full and adequate compensation for the service rendered?

Mr. Sisson. I think it is.

Commissioner GADSDEN. Tell the commission what you think about that.

Mr. Sisson. I think in the majority of cases that is an open question. There are instances when it was adequate, but I should say in the considerable majority of the cases it is an open question.

Commissioner GADSDEN. If they had set up, as they should have, a proper provision for depreciation and extraordinary obsolescence, is it not questionable whether the 5-cent fare ever was an adequate compensation?

Mr. Sisson. Yes; and as a banker I very frankly think they should have gone further than that and set up sinking funds which would have provided for the liquidation of their indebtedness—which almost none of them have done, and they could not do it, as a matter of fact, out of the 5-cent fare.

Commissioner GADSDEN. That is all, Mr. Chairman.

Commissioner MEEKER. Are you acquainted with the railway systems about Boston and Cincinnati?

Mr. Sisson. Well, in a general way only.

Commissioner MEEKER. Have they in those communities a system that is practically private ownership and public operation?

Mr. Sisson. I understand so.

Commissioner MEEKER. How does that sort of cooperation between the public and the private corporation work out?

Mr. Sisson. Well, my rough judgment is that it is working out fairly well and that it is very just and ought to be workable. In the Boston situation, writing off a good deal for depreciation and spending a good deal of money for maintenance that was needed, as I understand it, kept them from making the showing they expected to make; but the situation is improving and gives every promise of working satisfactorily and with fairness to the public and to the owners both.

Mr. WARREN. Those two cities are not on the same basis, however?

Mr. Sisson. No; the arrangement is different.

Mr. WARREN. Boston is public control practically; there is a board of public trustees running it. I understand that Cincinnati is service at cost with local supervision and regulation but with certain elements tending to stimulate the initiative of the private management. We expect to put on some witnesses as to Cincinnati.

Commissioner MEEKER. Very well; I will not follow that up.

Mr. WARREN. Yes, we will call witnesses on that, but I just wanted to call attention that the two situations were not identical.

Commissioner MEEKER. I was aware they are not identical, but if there are other communities where experimentation is being tried, I hope you will have witnesses to explain that.

Mr. WARREN. We hope to put on witnesses covering nearly all the more important service-at-cost experiments.

Commissioner MEEKER. Very good; I will not trouble you further.

Mr. WARREN. I want to ask one or two questions suggested by some of the commissioners' questions. When you speak of 5 per cent under a service at cost, that was predicated on an absolute guaranty of 5 per cent?

Mr. Sisson. Exactly.

Mr. WARREN. Now suppose that the allowable return under the service-at-cost arrangement, which included all the proper elements, included finally a return on the investment value, whatever that was determined to be, dependent upon the ability of the road at the various rates under the sliding scale to earn the return, what then should you say the return under present money conditions ought probably to be in order to induce new capital to come in? That is rather a long question, but perhaps you see the point.

Mr. Sisson. Yes. When you speak of return, it depends whether you treat the capitalization as a whole or distinguish between bonds and stock.

Mr. WARREN. I treat it both as a whole and in part, and I would like to know your opinion as to the wisdom of those two methods, too.

Mr. Sisson. I think that on that basis—

Mr. WARREN. This is without any guaranty other than what the business would insure.

Mr. Sisson. Viewed from the standpoint of the paying public, I should say that a bond would have to bear an interest rate of at least $5\frac{1}{2}$ per cent to be salable and that a stock would have to have a reasonably assured return of not less than 8 per cent to be salable.

Mr. WARREN. And I suppose it follows from that that if the return were going to be a flat return on the entire investment value, it would be a combination of those two?

Mr. Sisson. Yes.

Mr. WARREN. An average of those two?

Mr. Sisson. Yes. Might I add that I think one of the fallacies of our public-utility financing, which has been particularly true of the railroads and in a measure true of street-railway lines, has been the building up of this burden of debt all the time instead of making the stock attractive so people will buy it. We have been piling up fixed charges instead of giving these roads a credit based upon earnings which would permit a sale of stock to the public at a fair price. The railroad burden of debt has been increasing ratably year after year, because you can not sell railroad stock, the public will not buy it, because it is not assured of a fixed return.

Mr. WARREN. We have had a law in Massachusetts designed to provide for that, by which funded debt can be issued only to the par value of the stock, and as the stock can only be issued at par the result has been the piling up of a floating debt which is far more inimical, because it invites a receivership over night.

Mr. Sisson. A proper financial construction ought to provide for a bonded obligation of not more than 60 per cent of the real value and the balance in stock.

Mr. WARREN. And the situation ought to be made sufficiently attractive to readily market that stock?

Mr. Sisson. Absolutely.

Mr. WARREN. Mr. Stuart yesterday—whom you know probably—

Mr. Sisson. Yes.

Mr. WARREN. Testified that, in his opinion and from his experience in distributing street-railway securities, street-railway bonds

particularly, the average holding of such bonds outside of the few large corporations like life insurance companies, and so forth, was not over \$5,000; that including all the large corporate holdings the average holding was not over \$7,000. Would you think you could agree to that?

Mr. Sisson. I should think that is a very fair estimate. I should say it is no more than that and possibly less.

Mr. WARREN. You were asked something about abandoned lines, and I think you intimated that if a line was unsuccessful the people who invested the money ought to take the consequence, which I think as a business proposition is no doubt true. Is it not, however, a fact that there are a great many lines which are not earning even their operating expenses but the abandonment of which would work a very real hardship upon a considerable portion of the public?

Mr. Sisson. Yes. In answering that question I made that reservation, that unless the public interest was involved clearly.

Mr. WARREN. Yes, I think you did, but I did not think—

Mr. Sisson. And I think that is a very important reservation which must be made there.

Mr. WARREN. And in such cases probably some method of public ownership or public support such as has been worked out in Massachusetts to a certain extent ought to be resorted to?

Mr. Sisson. Yes; it is entirely possible that the operation of that line creates tax values which are a distinct source of profit to the municipality which it could well afford to provide for through the maintenance of the line.

Commissioner GADSDEN. In that connection, is it not true that most of these lines that are unproductive lines that we refer to, are tied in with existing systems?

Mr. Sisson. Yes.

Commissioner GADSDEN. And if the system could lop off the unproductive suburban lines, in many cases the road could probably take care of itself?

Mr. Sisson. Yes, that is true in a good many instances.

Commissioner GADSDEN. And under the law they are not permitted to cut off those unproductive and unremunerative lines?

Mr. Sisson. Yes, that is true in New York City to-day.

Commissioner GADSDEN. If they could get rid of their extensions they probably could get along in many cases?

Mr. Sisson. Yes, but it would be opposed to the public interest.

Commissioner SWEET. Those extensions are maintained for the benefit of the public residing in those outlying districts.

Mr. Sisson. Yes.

Mr. WARREN. That situation exists in a great many places and it is a very important public question, and not one that affects the street railways alone. In some jurisdictions—in Massachusetts, for instance—the companies can abandon lines, but that does not change the public question of whether those lines ought to be abandoned and the public dependent on them left high and dry, and the industrial centers dependent on them be deprived of the support coming from those lines.

Commissioner SWEET. Is it not true, Mr. Sisson—the fact that street-railway companies that have reached out into districts that are not directly profitable are performing now, and have been for

years, a sort of public service for which the companies have received no compensation or not adequate compensation?

Mr. Sisson. That is entirely true; yes, sir.

Commissioner SWEET. And is not that an additional reason for the public and the companies getting together now upon some general basis which will be fair and just?

Mr. Sisson. It certainly is. The public interest is greater than that of the corporation in many of those instances.

Mr. WARREN. Do you happen to be familiar with the Springfield fare situation, where the territory was divided into two 5-cent zones?

Mr. Sisson. I know of it in a general way.

Mr. WARREN. With a somewhat reduced rate passing from one zone into the other?

Mr. Sisson. Yes.

Mr. WARREN. With the American habit of either being irritated at having to use pennies or ignoring them, do you or do you not think that in many instances a 5-cent-fare zone might be established that would work out substantial satisfaction?

Mr. Sisson. I do; yes.

Mr. WARREN. Particularly with the present reduced purchasing power of the nickel?

Mr. Sisson. I certainly do; yes.

Mr. WARREN. Turning to the zone system more technically so called, which you referred to, of a small increment of fare to each new zone, usually a very limited system, is it not a fact that the initial fare is almost wholly a flat fare?

Mr. Sisson. Yes.

Mr. WARREN. And more than the increment for each successive zone?

Mr. Sisson. Yes.

Mr. WARREN. And that you had in mind, I suppose, when you spoke of that system?

Mr. Sisson. Exactly.

Commissioner BEALL. I would like to bring out for the benefit of the commission that it is not always outlying lines that are unprofitable. Very frequently it is duplications, and sometimes it is owing to the change in the characteristics of the neighborhood, like certain cross-town lines in New York City which you are familiar with.

Mr. Sisson. Yes.

Commissioner BEALL. And we have one north and south line there—the Second Avenue line—which is very unprofitable.

Mr. Sisson. Yes.

Commissioner BEALL. You see as many people on the street as you would in other places where the street-railway traffic is good, but it happens to be an avenue, although north and south, strange enough, where there is not a trend of travel.

Mr. Sisson. Yes.

Commissioner BEALL. Very frequently these things come about from either duplication or a change in the neighborhood.

Mr. Sisson. Yes. That has been a growth of recent years. That presents a peculiar situation; of a default upon receivers' certificate. They can not even make good the certificates of the court on that line.

Commissioner BEALL. I wanted to bring out that in the bigger cities particularly, perhaps there is more trouble with duplication of lines and changes in neighborhood characteristics than there is in outlying lines, although that is a big factor.

Mr. Sisson. Yes.

Commissioner MEEKER. May I add a word? What I had in mind particularly when I spoke of unwise extensions and building of new lines was perhaps primarily land speculation; and that should be, I take it you will agree, absolutely under the control of a commission.

Mr. Sisson. Yes.

Commissioner MEEKER. So that street railways would not be built in order to make profits and money for the members of a street-railway company regardless of the need of such an extension or line as a public rapid transit.

Mr. Sisson. Yes, I believe that.

Mr. WARREN. Following up the last two questions, you would agree, I think, that in those jurisdictions where the companies have not the authority to abandon lines, the authority ought to exist in some commission to permit the companies to do so under such circumstances?

Mr. Sisson. It certainly should.

Commissioner SWEET. There is one point that is not quite clear to me, Mr. Sisson. You have stated that you think there should be a qualified guaranty, as we speak of it, of at least $5\frac{1}{2}$ per cent on bonds in order to enable the companies to get their needed capital, and 8 per cent or thereabouts on stock. Have you not reference when you say that to the conditions that have prevailed heretofore in the relation between common stock and bonds?

Mr. Sisson. Well, no; I was speaking broadly about what I conceived to be a sound——

Commissioner SWEET. There never has heretofore been any guaranty upon common stock whatever.

Mr. Sisson. No.

Commissioner SWEET. And the purchasers of common stock have realized there was more of a speculative feature in their purchase and ownership of stock than the holder of the bonds.

Mr. Sisson. Yes.

Commissioner SWEET. They might get 1 or 2 per cent or they might get 10 or 15 per cent on the common stock.

Mr. Sisson. Yes.

Commissioner SWEET. Now if the public was to stand behind this matter and so adjust the rates—the fares that could be charged—that it would produce an income that would make the return upon common stock just as certain as the return upon bonds, why should there be any difference between the rate that should be obtainable by the holder of the common stock and the holder of the bonds?

Mr. Sisson. I had not assumed that the public would make any such definite assurance. I dealt particularly with the cost of capital and answered the question broadly that in order to sell bonds to the public and stock to the public in a proper financial structure of 60 per cent bonds and 40 per cent stock, the return ought to be about $5\frac{1}{2}$ per cent on the bonds and 8 per cent on the stock, or a reasonable

assurance of it. A return upon stock ought to provide for years in which no dividend would be paid perhaps, and earnings would be accumulated for extensions and betterments and perhaps sinking funds and depreciation. It might not always be possible to declare an 8 per cent dividend annually. It might be greater some years and less others, but a reasonable assurance of an earning of 8 per cent would sell common stock at par; which was the problem I faced in Mr. Warren's question.

Commissioner SWEET. In your mind would the assurance given by the public to the holders of stock be different and less than the assurance given to the holders of bonds?

Mr. Sisson. Well, I assume so, of course. If you are to have an unqualified and positive guaranty, there would be no difference between the two classes of obligation.

Commissioner SWEET. Suppose it were not a guaranty, but if the matter were left entirely to a State commission to adjust these rates so as to produce enough to pay interest upon the bonds of $5\frac{1}{2}$ per cent and $5\frac{1}{2}$ per cent upon the common stock; if the adjustment of rates were to be such as to enable that to be done, while taking care of the other necessities of the company, would not that be as fair an arrangement as could be made?

Mr. Sisson. That does not quite cover the question, because, bear in mind—

Mr. WARREN. Without any definite guaranty?

Mr. Sisson. Yes.

Commissioner SWEET. Without any guaranty except that the rate would be changed from time to time so as to, as nearly as possible, bring about that result.

Mr. Sisson. That does not quite cover the question, because, bear in mind, the bonds are a first obligation on the property and the stock does not come in until after that is met.

Commissioner SWEET. The stock only has an equity.

Mr. Sisson. That is all; and a man ought to be entitled to a larger return on an equity above the mortgage than the fellow below it, and you could not get the people to take an equity.

Commissioner SWEET. Would that be the case if the arrangement with the public were such that the amount which would be received by the stockholders in proportion to their holdings would be as great as the amount received by holders of bonds?

Mr. Sisson. I think it would, because I think there is no definite assurance of permanency of such an arrangement indefinitely. Political conditions and public sentiment change, and a man who has an underlying mortgage upon physical property is in much stronger position and has greater protection in the courts than a man who has an equity which might be greater or less in accordance with the fluctuation of public sentiment and conditions.

Mr. WARREN. In other words, the fluctuating conditions might affect the possibility of the scale's yielding a return on stock, although yielding sufficient to cover the bonds?

Mr. Sisson. Yes.

Commissioner SWEET. In other words, the bonds would come in first for their share?

Mr. Sisson. Yes.

Commissioner SWEET. The holders of stock would have to take what was left after providing for the other needs of the company?

Mr. Sisson. Yes; both in earnings and ownership.

Commissioner SWEET. And under your plan there would be some variation in what the holders of stock would receive?

Mr. Sisson. There must necessarily be so; yes, sir.

Commissioner SWEET. And consequently you think it would be just that the maximum would be somewhat larger than the maximum provided for the holders of bonds?

Mr. Sisson. Yes.

Commissioner SWEET. And that is your reason for it?

Mr. Sisson. I think it not only fair, but the practical question is that it would be necessary in order to sell stock to the public.

Commissioner MEEKER. No commission short of omniscience could regulate a rate so that you would get a $5\frac{1}{2}$ per cent return upon bonds and the same return upon stock.

Mr. Sisson. There is bound to be fluctuation.

Commissioner MEEKER. The bonds would come in first?

Mr. Sisson. Yes.

Mr. WARREN. That is the answer to it. In other words, there is a business risk. This service at cost does not eliminate after all the business risk. The street railway might be a business failure at a service-at-cost plan just as a shoe factory might be.

Mr. Sisson. Yes.

Mr. WARREN. All service at cost insures the investor that within the rules of business you can charge enough to make a profit in your business if your business will yield a profit?

Mr. Sisson. Yes.

Mr. WARREN. The minute you put the guaranty on the investor is safe; he does not care whether it is a successful or unsuccessful business. But as bearing upon the return, if I may refer to the Boston situation—and I think Mr. Sisson will probably bear out my figures—the Boston Elevated stock is guaranteed for 10 years under the service-at-cost proposition and then under the State guaranty, but the street-railway securities are still in such a position in the public estimation that that stock is selling for about 70, although guaranteed a 5 per cent return for two years and 6 per cent ultimately; so it is going to take some time, is it not, to rehabilitate this guaranty?

Mr. Sisson. Unquestionably.

Mr. WARREN. Even after a sound system is introduced for its assurance in the future?

Mr. Sisson. Yes.

Mr. WARREN. There are two or three questions on the rate. You said that undoubtedly in some cases an increase of rate involved a loss of traffic. Did you mean by that to imply that in some cases an increase in rate involved such a loss of traffic as to yield no increase in revenue?

Mr. Sisson. There have been such instances, but I do not believe that would be true generally.

Mr. WARREN. They are very exceptional; are they not?

Mr. Sisson. They are very exceptional; yes, sir.

Mr. WARREN. In other words, has not this been the usual situation—that when the increased rate first went into effect there would be

some loss of traffic, meaning by that counting the number of passengers.

Mr. Sisson. Yes.

Mr. WARREN. But there was almost in every case an immediate and substantial increase in revenue?

Mr. Sisson. Yes.

Mr. WARREN. You spoke of being in favor of public-service commission regulation, as the association which I represent here is on record as favoring.

Mr. Sisson. Yes.

Mr. WARREN. Is there any particular feature in the administration of the public-service laws which in this present emergency you would criticize or which you think might be improved?

Mr. Sisson. Well, in some instances, the matter that we discussed a while ago, the conflict between the public-service commissions and the local authorities. I think these laws drawn by the States ought to give the commission the full power to regulate rates upward as well as downward.

Mr. WARREN. Take cases where they have the complete power, as they have in Massachusetts and in numerous jurisdictions; is there still anything that you think has militated against the application of a remedy in this emergency in the last year?

Mr. Sisson. I think the fundamental thing that has militated against it has been political controversy.

Mr. WARREN. How about the delay?

Mr. Sisson. And the slowness of action which has failed to meet the crisis, as I pointed out in my first statement.

Mr. WARREN. And the crisis is increasingly serious up to the present time; is it not?

Mr. Sisson. It is indeed; yes, sir.

Mr. WARREN. Do you think that any of the more fundamental remedies which have been discussed here can in most cases be applied quickly enough to remedy the present situation—service at cost, guaranty, or what not, depending possibly upon legislation or action by municipalities? Do you think the companies can get along, in other words, without some immediate, or almost immediate, relief?

Mr. Sisson. No, I do not. I think they need it and need it immediately, and I do not know that the word "remedy" meets the case even then.

Mr. WARREN. But it would keep their heads above water?

Mr. Sisson. It certainly would help; yes.

Mr. WARREN. And that would be, as I understood you, through an increase in rates?

Mr. Sisson. Exactly.

Mr. WARREN. Referring to those street burdens again and to a possible profit-sharing plan between the company and the municipality, should not you say that it is generally true that the common phrase or term for the street car, "the poor man's carriage," is really the fact?

Mr. Sisson. Yes.

Mr. WARREN. And that in dealing with the fares and the burdens upon street railways, that ought to be kept in mind?

Mr. Sisson. I certainly do. It is only just.

Mr. WARREN. You spoke of the two possibilities in case the revenue exceeded the amount necessary to meet the cost of the service, I think; one turning the money over to the treasury, which you did not approve on the whole, because it was helping the more well-to-do taxpayer at the expense of an indirect tax on the poorer members of the community.

Mr. Sisson. Yes.

Mr. WARREN. And the other was to reduce the rate. Is there not, in some cases, a third method which might be desirable, not to reduce the rate but to let that surplus earning be retained in the property, not as a basis for payment of return to anybody but simply to strengthen the property?

Mr. Sisson. I think that most desirable, and I had assumed that that would be done under any arrangement.

Mr. WARREN. Through a sinking fund?

Mr. Sisson. Yes, or accumulated surplus.

Mr. WARREN. That is all.

Commissioner MEEKER. I would like to ask Mr. Warren a question, if it is allowable.

Mr. WARREN. I will be very glad to answer.

Commissioner MEEKER. You spoke of the absolute guaranty accorded to the Boston Elevated for 10 years. Is there any likelihood that the stocks will sell above 70 with such a limited guaranty as that?

Mr. WARREN. Well, considering, Mr. Meeker, that a few years ago the stock sold at 150 without any guaranty whatever, it would seem as if they ought to sell higher than that.

Commissioner MEEKER. Well, there is not any possibility, is there, of the stock being rehabilitated so as to sell at par or above under a guaranty limited to ten years, because Heaven only knows what will happen when the ten years is up?

Mr. WARREN. Apart from the guaranty, of course, the company has the right to charge on this sliding scale whatever is necessary to pay the cost of the service including that return. The guaranty is additional to the service-at-cost principle. At the end of the 10 years, in other words, the service-at-cost principle involved in that settlement continues.

Commissioner MEEKER. After 10 years the service-at-cost principle goes into effect?

Mr. WARREN. It is in effect now.

Commissioner SWEET. It is continued?

Mr. WARREN. Yes.

Commissioner MEEKER. But, Mr. Warren, under that system there never could be any justification for the common stock of the company to go up to such figures as you mention.

Mr. WARREN. No, not with the absolute guaranty.

Commissioner MEEKER. No; whether it was an absolute guaranty or an assurance of rates being changed in accordance with needs, there never could be the possibility of what we might call the gambling advantages which have been looked upon as being connected with common stock under the old system. There would not be the possibilities of great profits.

Mr. WARREN. No; there would not be. You mean under the service-at-cost system?

Commissioner MEEKER. Certainly.

Mr. WARREN. No; there would not. I assume that there would be some limit fixed. I was asking Mr. Sisson only to get his idea as a banker of where that limit ought approximately to be placed to insure a market for the stock, and I referred to the Boston Elevated stock only as in my judgment confirming his opinion of where the stock ought to be placed.

A few years ago street-railway stocks in Massachusetts sold on a 4 per cent basis. If their dividends were 6 per cent they sold at around 140 to 130, and some of them earning 8 per cent, of which there were a few sold for 200 to 220. But that was under our very strict regulation system, so that everybody knew that not only \$100 had been paid in but, in the case of the Boston Elevated, I think the stock averages the stockholders, not in the market, but in buying it from the company on the original issue; I think it is around \$119 or \$120 a share.

Commissioner MEEKER. Actually paid in?

Mr. WARREN. Actually paid in. The street railways of Massachusetts—and those figures I have referred to I must put in and will try not to forget it—the Massachusetts street railways, as a whole, with \$102,000,000 par capital, show in their balance sheet something like six and a half million dollars paid into their treasuries in addition to par value as premiums; and they really have paid in considerably more, because when that law first went into effect the premium was not set up in the balance sheet as it is now and as the Interstate Commerce Commission's method of accounting requires, but the premium would be paid in and carried to profit and loss and all charged off again. In other words, the property would be marked down by the amount of premium paid in; and my impression is there were two or three million dollars paid in in that way which are not reflected on the balance sheet.

Commissioner BEALL. Mr. Warren, was not one reason for the high price of street-railway stock in Massachusetts and also in Ohio, where the Cleveland property is located, the fact that they were legal investment for trustees and had certain exemptions from taxation?

Mr. WARREN. Yes, and—

Commissioner BEALL. What I want to bring out is: Under exactly the same conditions and same earning power and same rate of return in certain other States they would not sell for anything like as much, due to peculiar local conditions.

Mr. WARREN. I think you are quite right. In Massachusetts until recently the bonds of all corporations—and which made it impossible for trustees to buy bonds to any great extent—and the stock of all corporations not organized under the Massachusetts law were taxed on their principal value at the local rate, so that a 5 per cent bond selling for par would have to pay a tax in most towns and cities of approximately \$20, reducing the yield to 3 per cent. And the same would be true of the stock of a New York corporation selling in Massachusetts. That made a very marked differential in favor of the Massachusetts stocks.

Mr. Ford, will you take the stand?

STATEMENT OF MR. A. H. FORD.

MR. WARREN. I want to call Mr. Ford out of the order I had in mind, Mr. Chairman, because of the reference to the effect of increased fares, and I think he can give the commission some information on that which may be very interesting.

Your full name, Mr. Ford?

MR. FORD. A. H. Ford.

MR. WARREN. Your residence is?

MR. FORD. Portland, Me.

MR. WARREN. You are connected with a street railway there?

MR. FORD. Vice president and general manager of the Cumberland County Power & Light Co.

MR. WARREN. That company operates the Portland Street Railway Co.?

MR. FORD. Yes.

MR. WARREN. And the Portland Street Railway Co. is merely a street-railway company; is it not? Does it have an electric-light company attached to it?

MR. FORD. The Cumberland County Power & Light Co. controls and operates the Portland railroad under a lease.

MR. WARREN. But the Portland Street Railway has no business except a street-railway business?

MR. FORD. That is all; yes, sir.

MR. WARREN. And the Portland Street Railway has recently increased its passenger fares?

MR. FORD. Yes, sir.

MR. WARREN. To what figure?

MR. FORD. We had originally 5 cents; and in 1918 we increased it to 6 cents, and on June 15 we increased it to 7 cents.

MR. WARREN. Now, since you increased the fare to 7 cents, which involves a theoretical increase in revenue of 40 per cent, does it not, over a year ago—

MR. FORD. Yes.

MR. WARREN. Will you please tell the commission what thus far—as far as you have returns—the actual increase in revenue has been?

MR. FORD. Well, the increase for the first half of July amounts to 37 per cent.

Commissioner SWEET. July of this year?

MR. FORD. Yes; this present month.

MR. WARREN. Compared to a year ago when there was a 5-cent fare?

MR. FORD. Yes.

Commissioner SWEET. And this is on the 7-cent basis?

MR. FORD. Yes.

Commissioner MEEKER. Will you please repeat it, so I can get it clearly?

MR. WARREN. State what the fare was a year ago at the same time.

MR. FORD. The fare a year ago was 5 cents. Then in August the fare was increased to 6 cents.

Commissioner MEEKER. That is August, 1918?

MR. FORD. Yes. Then on June 15 of this year the fare was increased to 7 cents. We are operating under the zone system.

MR. WARREN. What do you mean by the zone system?

Mr. FORD. The system was divided. We have 106 miles of track, and the system was divided up into practically mile zones, and a charge is made of so much for each zone. Our rate at the present time is $2\frac{1}{2}$ cents for a zone—the city proper being divided up into three zones, making a 7-cent fare.

The CHAIRMAN. Do you mean by that that there is a rate of less than 3 cents within one zone?

Mr. FORD. Yes, sir; that is, you can ride on an initial ride of three zones for 7 cents, and then—

Mr. WARREN. That is the minimum initial fare?

Mr. FORD. Yes.

The CHAIRMAN. For the shortest ride?

Mr. FORD. Yes; the initial ride of three zones—in three zones.

Mr. WARREN. Or less. If you ride 1 mile you pay 7 cents, or three zones.

Commissioner SWEET. How about one block?

Mr. FORD. Seven cents.

Mr. WARREN. That 7 cents, however, is good, if you want to go so far, for three of your zones?

Mr. FORD. Yes.

Commissioner SWEET. That would be in a continuous journey?

Mr. FORD. Yes; but if you want to ride four zones you pay $9\frac{1}{2}$ cents; but it is handled by a system of tickets. A zone-ride ticket, which is the popular ticket used, costs 35 cents. Then we have what we call a 15-zone ticket that costs 35 cents. So that the passenger supplies himself with two kinds of tickets—the 7-cent ticket, five rides, and the 15-zone ticket—and if he wants to make four zones the conductor punches one ticket out for the 7-cent ride or the 3-zone ride, and then he punches one of these 15-zone coupons out for the extra zone that he rides.

Mr. WARREN. How many zones are there in the city limits?

Mr. FORD. Three.

Mr. WARREN. Then am I right in thinking that the net effect of that system in the city limits is a 7-cent fare?

Mr. FORD. Yes, sir.

Mr. WARREN. Just the same as if you had a flat 7-cent fare in the city of Portland?

Mr. FORD. Exactly.

Mr. WARREN. Is this increase you speak of 37 per cent in the city limits or on the entire system?

Mr. FORD. The entire system.

Commissioner MEEKER. It is not yet clear to me just what that 37 per cent increase means. Is it the increase in July of this year over July of last year?

Mr. FORD. Yes, sir.

Commissioner MEEKER. For the same length of time?

Mr. FORD. Yes.

Commissioner MEEKER. One-half of the month?

Mr. FORD. Yes.

Mr. WARREN. And what was the system of fare a year ago, Mr. Ford?

Mr. FORD. It was the straight 5-cent ride, or our ordinary New England zone of—

Mr. WARREN. Two or 3 or 4 miles in length?

Mr. FORD. Something like that.

Mr. WARREN. Then it was a 5-cent flat fare in the city limits a year ago?

Mr. FORD. Yes, sir.

Mr. WARREN. And then as you went from the city limits you went into a 5-cent zone of 2 or 3 miles in length?

Mr. FORD. Yes.

Mr. WARREN. And then passed into another 5-cent zone?

Mr. FORD. Yes.

Mr. WARREN. That was the system a year ago?

Mr. FORD. Yes, sir.

Mr. WARREN. This system you have described now as the present system—7 cents in the city—is a 7-cent fare for any three much shorter zones?

Mr. FORD. Yes.

Mr. WARREN. And as you go from the city you pay a certain amount. What did you say it was?

Mr. FORD. Two and one-third cents.

Mr. WARREN. Two and one-third cents for each additional zone?

Mr. FORD. For each mile or zone.

Mr. WARREN. And each zone is about a mile?

Mr. FORD. Yes.

Mr. WARREN. You spoke of having increased the rate last August, I think, a year ago.

Mr. FORD. Yes.

Mr. WARREN. What system did you adopt then? You had this old-fashioned New England 5-cent zone. What did you put in in August?

Mr. FORD. In August we put in the straight 6-cent fare, 1 cent increase on those 5-cent zones.

Mr. WARREN. You did not change the limits at all?

Mr. FORD. No.

Mr. WARREN. You jacked up each 5-cent fare to 6 cents?

Mr. FORD. Except in the city, and on the city lines which were—on three of our city lines we charged a 5-cent fare.

Mr. WARREN. You continued the 5-cent fare, in other words?

Mr. FORD. Yes.

Mr. WARREN. And did not change it?

Mr. FORD. On only three of the city lines; those are the principal lines running up and down the city on the peninsula.

Mr. WARREN. And the other city lines you did raise to 6 cents, did you?

Mr. FORD. Yes.

Mr. WARREN. Was that change of fare accompanied with a general public acquiescence in August last, or was it made against a good deal of opposition?

Mr. FORD. It was made against a great deal of opposition. We made application in February for this increase in fare—

Mr. WARREN. February, 1918?

Mr. FORD. February, 1918. We had previously made a valuation of our property, and that valuation took us 19 months to make; and that valuation was checked by the public-utilities commission engineers, and it took us until August 2; while the application was made

in February the hearing continued until August 2 before we got a decision.

Mr. WARREN. And as you have said, there was a good deal of public opposition to it?

Mr. FORD. A great deal.

Mr. WARREN. How did that first increase work out, from 5 cents to 6 cents?

Mr. FORD. It was not satisfactory.

Mr. WARREN. That should have shown theoretically approximately 20 per cent.

Mr. FORD. Twenty per cent.

Mr. WARREN. But not quite, because on three of your best lines in the city you still kept the 5 cents.

Mr. FORD. Yes.

Mr. WARREN. So it would be less than 20 per cent. But have you ever figured what it should have shown?

Mr. FORD. Well, it ought to have shown about 18 per cent. It actually showed about 4 per cent.

Mr. WARREN. For what period?

Mr. FORD. For that period, August 2 to —

Commissioner SWEET. To July 15, 1919?

Mr. FORD. To June 15.

Mr. WARREN. That period included the influenza situation?

Mr. FORD. In October; yes.

Mr. WARREN. When you made your change in June, was that made against public opposition to any great extent?

Mr. FORD. No; we had practically no opposition.

Mr. WARREN. In other words, the public really recognized your need of additional revenue, you think?

Mr. FORD. Yes, because of the efforts that had been made by the public-utility commission and by ourselves—the management—to make the people acquainted with our condition.

The public-utility commission recognized the gravity of our situation and were anxious to provide a remedy. I think they recognized the fact that any rate that they named on our property would not yield the results unless the people supported the rates. The first move they made in that direction was to invite representative citizens to a dinner given under the auspices of the chamber of commerce, and at that dinner they promulgated this rate —

Commissioner SWEET. That is, the State commission did?

Mr. FORD. Yes, sir; and explained to the people present what that rate meant and what it would produce and the needs of the company for an increased rate. And the whole purpose of that gathering was to get the cooperation on the part of the public in supporting that trolley company. Then they followed that up by getting the newspaper men together, and they requested the newspaper people to support the trolley company.

Commissioner SWEET. When you say "they," you still refer to the State commission?

Mr. FORD. The State commission. Those two acts were rather unusual on the part of a State commission. However, that produced the result. We began to notice immediately a change in the public sentiment.

Well, the management followed up that plan on two increases that we asked for, and two separate hearings before the commission were held on those increases. We followed that up by holding public meetings in 10 different locations on our property: the people that we served, the community centers of population, and the people were invited. The meetings were advertised; and I went with my assistants before them to ask for any criticism that they had to make on the service, on the management, or any suggestions they had to make. At the same time we explained this ticket system, which is a rather new proposition. We had never tried it before and did not know of any place where it had been tried; and it was important that the people should understand the system that we proposed to put in to get these fares, and at the same time we had to explain this new zone system.

Well, the result of that work and of the work done by the commission was a complete change in the public sentiment. In the meantime, we were working with our own employees. The public sentiment prior to that time was antagonistic to the company. The men themselves were unionized and they were not interested in our proposition. The work that we did with them resulted in securing their cooperation.

Commissioner SWEET. Was that purely educational?

Mr. FORD. Entirely—and explaining to them what the situation was and what their duty was in this matter.

The CHAIRMAN. Was there any hope entertained that if a larger fare was secured they would have additional wages?

Mr. FORD. No, sir.

The CHAIRMAN. No promise was made?

Mr. FORD. No, sir. In November the National War Labor Board had increased our wages on that little property \$150,000 in the award that they made.

Mr. WARREN. From what rate to what rate, Mr. Ford?

Mr. FORD. To 45 cents for the maximum for motormen and 42½ cents minimum pay.

Commissioner MEEKER. What had been the pay before that?

Mr. FORD. The pay before that had been 33 cents.

Commissioner MEEKER. Flat?

Mr. FORD. No, sir; 33 cents for the maximum.

Commissioner MEEKER. For the maximum?

Mr. FORD. Yes. Now, I stated that we did not have opposition on this 7-cent fare. It was because we had done these things—or we had not done it, but all of these things had been done to make the public acquainted with our condition and to appeal for their support; and that is the reason we are getting 37 per cent increase on this 40 per cent theoretical raise in rate.

Commissioner MEEKER. May I ask a question there? In case an individual does not provide himself with tickets, must he pay 7 cents for every zone outside of the city limits?

Mr. FORD. The commission fixed a differential between a cash fare and a ticket fare. The cash fare is 9 cents, and the—

Commissioner MEEKER. That is 9 cents within the city limits?

Mr. FORD. Nine cents within the city limits.

Commissioner MEEKER. In the three zones?

Mr. FORD. For the three zones, and 3 cents for each zone outside. That is, they pay a 9-cent fare and they get a transfer which enables them to continue their ride for one zone or two zones more by the payment of 3 cents or 6 cents.

The CHAIRMAN. In the absence of this differential what per cent of your revenue is cash fare?

Mr. FORD. About 5 per cent.

Mr. WARREN. Ninety-five per cent is tickets?

Mr. FORD. Yes.

Mr. WARREN. So that really the ticket rate is the actual rate?

Mr. FORD. Yes. There is no complaint from our traveling public on account of that system.

Commissioner BEALL. Can a passenger buy tickets from any conductor?

Mr. FORD. Every conductor is supplied with a full line of tickets.

Mr. WARREN. I think that is all. I submit that merely as indicating, Mr. Chairman, that the increase of rates under circumstances where the public appreciates the necessity of it has materially increased the revenue, and that the opposition—do you think the opposition or this whole public attitude toward the increase of rates, Mr. Ford, is a matter of sentiment on the part of the public psychologically?

Mr. FORD. I think it is. I believe that the success of any rate depends upon the support that the people give that rate.

Mr. WARREN. When it is first put into effect?

Mr. FORD. When it is first put into effect.

Mr. WARREN. That leads me to another question. Suppose that at the beginning the new rate does not yield either the theoretical possibility or a substantial part of it: do you think in the long run, after the public gets used to it and gets over any irritation or pique that they may feel, that at the increased rate the traffic will gradually return at the higher rate?

Mr. FORD. I think it will. There are two things that are psychologically in the public mind when the rate is increased. The first is that the people want to economize, and the second is there is a rebellion against the increase in the rate. Now gradually both of those are overcome, and I believe in our situation that we shall get the full 40 per cent theoretical increase and that we shall get from 2 to 5 per cent of the natural increase that ought to come with the growth of the city.

Mr. WARREN. And I judge from what you have said and the emphasis which you have placed on the action of the Public Utilities Commission of Maine that you believe that that attitude, the commission itself having become convinced of the exigency, was the most helpful element of any of the elements you have mentioned?

Mr. FORD. I think it was.

Mr. WARREN. That is all.

Commissioner MEEKER. I would like to ask what you mean by 2 to 5 per cent increase due to the natural growth of the city? That has been the experience of the railway company in times past, that the annual earnings increase about that much each year?

Mr. FORD. Yes; all of our cities are increasing naturally in population; and we must naturally count upon getting a larger travel under exactly the same conditions next year than we had this year.

Commissioner MEEKER. You think the institution of the zone system will not have any appreciable effect upon the growth of the community—centering the population rather than spreading it out as in times past, so as to diminish the rate of increase?

Mr. FORD. I think not. The zone system is, in my judgment, the fairest way to fix a rate for the reason that people pay for what they get.

Commissioner SWEET. When did you establish the zone system?

Mr. FORD. That was established October 2, last year.

Commissioner SWEET. 1918?

Mr. FORD. Yes, sir.

Commissioner SWEET. Since that has been in operation have you noticed any tendency to greater congestion in the center of your city?

Mr. FORD. No, sir.

Commissioner SWEET. The rate which you have decided upon is substantially 3 cents a mile where cash is paid?

Mr. FORD. Yes.

Commissioner SWEET. The zones are a mile wide?

Mr. FORD. About a mile; they vary. Those zones were fixed to convenience the greatest number of people. Sometimes they would be three-quarters of a mile and sometimes a mile and a quarter—it depended upon the centers of population.

Commissioner SWEET. But roughly speaking, it is about a mile?

Mr. FORD. Roughly speaking, it is about a mile.

Commissioner SWEET. And 3 cents in cash is paid for each zone?

Mr. FORD. Yes.

Commissioner SWEET. And where tickets are bought—

Mr. FORD. Two and a third cents.

Commissioner SWEET. You have a rather public-spirited commission in this State, have you not?

Mr. FORD. We certainly have.

Commissioner SWEET. Made up of pretty broad-gauge men?

Mr. FORD. Yes.

Commissioner SWEET. How is that commission appointed?

Mr. FORD. Appointed by the governor.

Commissioner SWEET. How many are there on the commission?

Mr. FORD. Three.

Commissioner SWEET. Were they political appointments?

Mr. FORD. Two Republicans and one Democrat.

Mr. WARREN. Does the law provide for bipartisan representation?

Mr. FORD. No.

Mr. WARREN. It could all be of one party?

Mr. FORD. It could be. They have kept the public-utilities commission out of politics up there; and the public-utilities commission has entire regulation of our rates, under our law. Any 10 people can hale us before the commission on a petition, and then 30 days' notice has to be given before a rate can be changed; and we have conditions like that.

The CHAIRMAN. What control is there over your service?

Mr. FORD. Absolute control.

The CHAIRMAN. By the public-service commission?

Mr. FORD. Yes.

The CHAIRMAN. Have the municipalities any control at all?

Mr. FORD. None whatever; and we like the arrangement and are very well pleased.

Commissioner SWEET. Has the commission handled other similar cases in other cities in Maine?

Mr. FORD. Yes.

Commissioner SWEET. What other cities have had an experience along this line?

Mr. FORD. Well, the Lewiston, Augusta & Waterville Street Railway Co., which is 16½ miles of practically interurban lines. They have raised the rates on that road from 5 to 7 cents.

Mr. WARREN. Keeping the same old zones?

Mr. FORD. Practically the same zones.

Mr. WARREN. In the 5-cent collection zone right along, the rate was raised to 7 cents?

Mr. FORD. Yes.

Commissioner SWEET. What was the experience there? Does it correspond with Portland's experience, if you know?

Mr. FORD. Well, yes; I know, because I have a good deal to do with that company. They are showing now about 36 per cent increase since the first of the year on that road.

Commissioner SWEET. Is their business largely a suburban business?

Mr. FORD. Yes, sir. But they went about the thing in the same manner. The utilities commission appeared before the chambers of commerce, and they did other things to help that company out—really doing the thing that a public-utility commission ought to do; and a better sentiment was built up along that entire system and people responded.

Commissioner SWEET. What other cities have been helped by the commission?

Mr. FORD. Bangor. The Bangor company has increased their rate from 5 to 6 cents.

Commissioner SWEET. They have adopted the zone plan?

Mr. FORD. Well, no; they have not the same mile-zone plan that we have. They have the usual New England 5-cent zone or territory: it is about 2 miles or 2½ miles, something like that.

Commissioner SWEET. And then it jumps a full 5 cents to the next zone; does it?

Mr. FORD. Well, yes; 6 cents is what they charge for each zone.

Commissioner SWEET. That is paid in cash?

Mr. FORD. Well, they have only the one system.

Commissioner SWEET. They do not have the ticket system?

Mr. FORD. No. Now on the Atlantic Shore Railway—that is an interurban line in the southern part of the State—they have just recently advanced their rates to 8 cents per zone.

Commissioner SWEET. What have been the results in Bangor and on the Atlantic Shore?

Mr. FORD. Well, of the Atlantic Shore I have not heard, because that only recently went into effect. In Bangor they have increased their receipts—I think they have gotten about 12 or 15 per cent out of the 6-cent rate increase.

Commissioner SWEET. Does that indicate some falling off in patronage?

Mr. FORD. Yes; you never get the full amount of the increase.

Commissioner SWEET. How long has the Bangor raise been in operation?

Mr. FORD. I think it has been in operation about four months.

Commissioner SWEET. Would you expect that, as the public become educated to it in Bangor the same as in Portland, that will increase?

Mr. FORD. Yes.

Commissioner SWEET. The patronage will return?

Mr. FORD. Yes.

Commissioner SWEET. In the educational work that you did, was particular stress laid upon the advantages to the public or both?

Mr. FORD. Well, we discussed the matter with them from their viewpoint.

Commissioner SWEET. That is, the public viewpoint?

Mr. FORD. It was a question of service. We did not wait for the increase in the rate. We increased our service before the rate came in, showing—or we wanted to show—our faith in the public. I think that did a great deal to get us support.

Commissioner SWEET. In what way did you increase your service: more cars?

Mr. FORD. We ran cars more frequently.

Commissioner SWEET. They ran on shorter schedule?

Mr. FORD. Yes.

Commissioner SWEET. And you think the public appreciated that?

Mr. FORD. Yes.

Commissioner SWEET. And showed its appreciation by acquiescing in the raise when it finally came?

Mr. FORD. Yes.

Commissioner SWEET. But in your efforts to educate the public to the situation, you laid your cards practically on the table and let them understand your financial situation?

Mr. FORD. Yes.

Commissioner SWEET. And everything?

Mr. FORD. And everything. There was not a thing concealed from them.

Commissioner SWEET. And they appreciated your frankness and candor and responded in kind, in a way?

Mr. FORD. Yes. In these meetings I gave them the privilege of asking any questions they wanted to and advance any criticism they wanted to.

Commissioner SWEET. Do you think, Mr. Ford, that similar tactics throughout the country would show similar results?

Mr. FORD. Undoubtedly.

Commissioner SWEET. Do you think human nature is the same in Maine as it is in other parts of the country?

Mr. FORD. Yes.

Commissioner SWEET. And you feel that you have solved the problem; or don't you?

Mr. FORD. I would not like to say that. I hope we have. I believe that we have gotten a rate that the people are going to support and that gradually we shall work out of our difficulties. It is going to take time, but I believe that a rate can be put to such a point that you will spoil your whole proposition and raise it too high.

Commissioner SWEET. Are you making proper provision now for deterioration?

Mr. FORD. Yes, we are depreciating our property through operating expenses, charging it right to operating expenses—10 per cent of our earnings.

Commissioner SWEET. Have you any objection to being as frank with us as you were with the people there, with regard to your financial situation and the result?

Mr. FORD. Not at all.

Commissioner SWEET. Of course it would be very instructive to us to have you give us a statement showing what your condition was, we will say, after the first change that you made, on August 2, 1918—was that the date?

Mr. FORD. 1918; yes, sir.

Commissioner SWEET. Now at that time what your situation was, the results that followed that first change, and then the next change was made June 15, 1919, was it not?

Mr. FORD. Yes. Well, the next change was made—

Commissioner SWEET. Of course, you have told us in a general way, but what I mean is more definitely with reference to the lack of necessary earnings prior to the first change that made that change or some change necessary, and what the situation has developed into with reference to your earnings and your ability to pay any dividends or meet interest on obligations and so forth. I think that would be very instructive, if you are willing to tell us.

Mr. FORD. Yes, sir; I am entirely agreeable to it.

The CHAIRMAN. Can you file a statement showing those figures?

Mr. FORD. I can do that or I can state it to you very briefly now probably.

Commissioner SWEET. Stating it briefly and filing a statement for future reference would be very helpful; don't you think so?

Mr. WARREN. On August 2 were you earning any dividends?

Mr. FORD. No; we were not earning our dividend.

Mr. WARREN. Were you earning your fixed charges on August 2?

Mr. FORD. Yes.

Mr. WARREN. At the old rate you were just meeting your operating expenses and fixed charges?

Mr. FORD. Yes.

Mr. WARREN. And taking care of your depreciation?

Mr. FORD. Yes.

Mr. WARREN. At the same rate that you are taking care of it now?

Mr. FORD. Yes, sir.

Mr. WARREN. Now, with this increase which you have recently made which you figure at 37 per cent of gross, you of course would be able to take care of your operating expenses, do you think?

Mr. FORD. I think we can. Of course the people are not as fully reconciled to the new rate as they will be eventually. We ought to have a natural increase in our business of, say 5 per cent, and we ought to handle as much business under the 7-cent rate as we handled under the 5-cent rate—as much business.

Mr. WARREN. Well, you are very nearly handling as much?

Mr. FORD. Very nearly.

Mr. WARREN. I think what Mr. Sweet wants to know is, assuming that that continues—that same increase in gross of 37 per cent—what

will it do, first, as regards operating expenses; second, a proper depreciation; third, fixed charges; and fourth, dividends?

Mr. FORD. Well, I believe that the 7-cent rate will pay 5 per cent on the \$2,000,000 of stock we have issued—it will pay all the interest on the bonds, and provide this depreciation fund.

The CHAIRMAN. How does the value of your property which was agreed to by the public-service commission correspond with your capitalization?

Mr. FORD. It took us nearly two years to make a valuation of our property. That valuation was checked by expert engineers employed by the State; and the value of the stock, leaving out certain intangibles, which ought to be included in value, they showed that that stock was worth \$132 a share.

Commissioner SWEET. On a face value of 100?

Mr. FORD. Yes.

Mr. WARREN. One other question, Mr. Ford—

Mr. FORD. In other words, we had more value in the property than the securities represented.

The CHAIRMAN. Will you resume the stand at 2 o'clock, please?

Mr. FORD. Yes.

(At 1 p. m. a recess was taken until 2 p. m.)

AFTER RECESS.

The hearing was resumed at 2 o'clock, p. m.

Commissioner SWEET. You may proceed, Mr. Warren.

Mr. WARREN. Will you resume the stand, Mr. Ford, please?

STATEMENT OF MR. ALBERT H. FORD—Continued.

Mr. WARREN. There is only one more question, Mr. Ford, that I wish to ask you, and that is this: As I understand, you have an existing agreement with your men for 45 cents an hour, running until next May?

Mr. FORD. Yes, sir.

Mr. WARREN. If, at the end of that period, or if before the end of that period, it should become necessary to increase materially your rate of wages, would it then, in your opinion, be necessary to make a further increase in your rate of fare?

Mr. FORD. I think it would.

Mr. WARREN. That is all. Thank you very much.

Commissioner SWEET. Have you any questions you want to ask?

Commissioner MEEKER. No.

Commissioner SWEET. Have you, Mr. Gadsden?

Commissioner GADSDEN. No questions.

Mr. WARREN. Mr. Ford may be excused?

Commissioner SWEET. Yes, sir.

Mr. WARREN. Mr. Tingley, will you take the stand, please?

STATEMENT OF MR. C. L. S. TINGLEY.

Mr. WARREN. Will you give your full name, Mr. Tingley, please?

Mr. TINGLEY. C. L. S. Tingley.

Mr. WARREN. You are vice president—

Mr. TINGLEY. I am vice president of the American Railways Co.

Mr. WARREN. And that company is interested in the operation of various street railways?

Mr. TINGLEY. It is a holding company for various public utilities, principally in the States, including Virginia, West Virginia and Kentucky, east of the Mississippi River, north of those States, and east of the Mississippi River.

Mr. WARREN. Will you name the street-railway companies?

Mr. TINGLEY. The Jersey Central Traction Co., the Bridgeton & Millville Traction Co., the Wilmington & Philadelphia Traction Co., the Scranton Railway Co., the Altoona & Logan Valley Electric Railway Co., the Roanoke Railway & Electric Co., the Lynchburg Traction & Light Co., the Ohio Valley Electric Railway Co., the People's Railway Co. of Dayton, Ohio, the Springfield Railway Co. of Springfield, Ohio, and the Chicago & Joliet Electric Railway Co.

Mr. WARREN. Now, Mr. Tingley, will you tell the commission, as regards any of these companies, what your experience has been in increasing rates and what the effect has been?

Mr. TINGLEY. We have increased rates on practically all of these companies. The increases and the effect have been materially controlled by the industrial conditions. In communities which had a large war business and where there had been a great influx of population the increases did not have to be so much and the effect was greater than it was in other communities.

To illustrate: Scranton, Pa., was not only not affected by war industry, having none, but it lost substantially in population by reason of the military service of the younger men, who are among the best patrons of the railway, and also the men being attracted to the centers where the war work offered much higher wages than they could get in the main industry of Scranton, which is the anthracite coal mines. The riding habit was also affected by the stimulation of mining, which kept the men underground for longer periods than they would be normally.

In September, 1917, we filed an increase in rate from 5 to 6 cents. The municipality raised the question of the authority of the public-service commission to permit an increase in rates in the face of a rate of fare fixed in the contract ordinance, and we agreed with the public-service commission that we would not attempt to put that rate into effect until that legal question was decided.

In explanation of that, I think we should put in right here something with reference to our public-service law in Pennsylvania.

Under the laws of Pennsylvania, a railway is primarily charged with the fixing of its rate. The railway files its tariff with the public-service commission, and it becomes effective 30 days after filing. The commission is without power to suspend rates until after complaint and hearing. So that that agreement was necessary to avoid the rates becoming automatically effective at the end of the 30 days.

Commissioner SWEET. Unless there is some question from some private individual—

Mr. TINGLEY. It becomes automatically effective.

Commissioner SWEET (continuing). The public-service commission takes no action upon it whatever?

Mr. TINGLEY. It takes no action. Of course, if the commission should think that your rate was unreasonable or extortionate, they could on their own motion institute an investigation.

Commissioner SWEET. They have the power—

Mr. TINGLEY. They have the power; but it would be an unusual case in which they would do it that way, without complaint.

The matter dragged along until March, 1918, when the commission decided that they had power, notwithstanding the contract ordinance; and when one or two of the lower courts in Pennsylvania had acted on injunction proceedings seeking to restrain the commission from acting, they decided that the commission must first act before the court had jurisdiction, and, again, parenthetically, the superior court yesterday handed down a decision sustaining the powers of the commission, notwithstanding the contract ordinance.

Commissioner SWEET. Is that the court of last resort?

Mr. TINGLEY. No, sir. That is the court of appeals there—

Commissioner SWEET. An intermediate court?

Mr. TINGLEY. An intermediate court.

On the 21st day of March, 1918, a 6-cent fare went into effect.

Commissioner SWEET. In Scranton?

Mr. TINGLEY. In Scranton; and it resulted in a small diminution in travel. Being a theoretical 20 per cent increase, it was producing about 12 to 13 per cent increase.

The War Labor Board, in August, handed down a decision increasing our wages very materially. The maximum rate for motormen and conductors at the end of three years' service had been 36 cents an hour. It was raised to 45 cents an hour at the end of the first year's service. A minimum wage of 42½ cents was established for all other employees, amounting in some instances to a 90 per cent increase. It was a flat increase of all wages of 51½ per cent.

Under the 6-cent fare we were having a surplus of about \$100,000 a year over and above fixed charges. The theoretical increase granted by the War Labor Board amounted to \$340,000; so it was manifest that we had to have more income.

We filed in August an 8-cent tariff, which became effective on the 15th day of September.

Commissioner SWEET. Of this year?

Mr. TINGLEY. Of 1918.

Commissioner SWEET. Oh, I mean 1918.

Mr. TINGLEY. Which resulted in a very prompt diminution in travel. It was followed early in October by the outbreak of influenza, which was very severe in that country and the travel dropped 50 per cent. By December, however, the travel had returned, showing a loss of about 20 per cent in passengers but an increase of about 28 per cent in income; and in May, when the public-utility commission finally decided the rate case, the travel was running along, showing a diminution of about 18 or 19 per cent, which was just where the company had figured it would land. We had figured that if we only lost 20 per cent of our travel and collected an 8-cent fare we would be made whole and able to stand this increase in wages.

Mr. WARREN. Did that mean that you were getting about two-thirds of the theoretical possible increase in revenue, Mr. Tingley?

Mr. TINGLEY. Yes, sir.

The commission then handed down its decision, which created four tickets for a quarter, or $6\frac{1}{4}$ cents each, sold on the cars, for a trial period of six months, with a cash fare of 7 cents. Under that 7-cent tariff, in the month of June, and so far in July, we are carrying more people than we carried last year under the 6-cent tariff which was then in effect.

Now, taking the Wilmington & Philadelphia Traction system that serves the city of Wilmington, the adjacent territory, the city of Chester, and up to a connection with the city lines of the city of Philadelphia, the borough of Darby—

Commissioner SWEET. Before you leave Scranton let me ask you this question, Mr. Tingley: Has the return of the soldiers or laborers had anything to do with this increase?

Mr. TINGLEY. The town is getting back to normal; yes, sir.

Commissioner SWEET. Yes.

Mr. TINGLEY. The town is getting back to normal.

Commissioner SWEET. Can you differentiate now between the elements?

Mr. TINGLEY. Well, I did not refer to income there. I said that we were carrying more passengers.

Commissioner SWEET. I understand.

Mr. TINGLEY. In other words, we are getting about what I think is more nearly approaching the growth of a community of that size; that is, about 5 per cent per annum.

Commissioner SWEET. That would be due to the return of the population?

Mr. TINGLEY. Yes, sir.

Commissioner SWEET. In part?

Mr. TINGLEY. Yes.

Commissioner SWEET. And you also think it is in part due to a better feeling on the part of the public in regard to the raise?

Mr. TINGLEY. Well, as to the feeling on the part of the public, I want to speak very guardedly on that, because we are in a very nasty political situation there. In other words, it has been made a political issue with the city council.

Commissioner SWEET. Of course, we are all one family here and you can tell secrets if you want to.

Mr. TINGLEY. I know, but a good deal goes out over the wire.

Mr. WARREN. At any rate, you are now back to your normal situation?

Mr. TINGLEY. Yes.

Mr. WARREN. In other words, with this increased fare, your traffic is just the same as it was with the old 5-cent fare or 6-cent fare?

Mr. TINGLEY. Under the 6-cent fare a year ago; yes.

Now, the Wilmington to Philadelphia system, serving Wilmington and Chester, which probably, in proportion to their size, had more war business than any other community in the country—we instituted a 6-cent fare there in June, 1918. That is a theoretical 20 per cent increase. As a matter of fact, after the armistice was signed, the increases there ran from 30 to 40 per cent, and to-day, with the war business practically eliminated, we are showing about a 7 per cent increase in those earnings, comparing a 6-cent fare this year with a 6-cent fare last year.

There was a complaint against that fare in the city of Wilmington. The commission sustained us, and the court sustained the commission.

In Pennsylvania, in the Chester end of the system, complaint was filed with the public service commission, but was later withdrawn.

Commissioner SWEET. When you speak of the 6-cent fare, you refer to the fare within the corporate limits?

Mr. TINGLEY. Yes.

Commissioner SWEET. Only?

Mr. TINGLEY. Yes, sir.

Commissioner SWEET. And from Wilmington to Chester—

Mr. TINGLEY. And from Wilmington to Chester there are three zones of 6 cents each; and from Chester to Darby there are two zones of 6 cents each; and there are collateral lines that have been placed upon the same basis.

Commissioner SWEET. Yes.

Mr. WARREN. Those are somewhat like what Mr. Ford called the New England old-fashioned zone?

Mr. TINGLEY. Yes. Those zones are about 3 miles long.

Mr. WARREN. And that system you did not change?

Mr. TINGLEY. We did not change that system.

Mr. WARREN. As I understand it, that 6-cent fare has been in effect, how long, Mr. Tingley?

Mr. TINGLEY. Since June, 1918.

Mr. WARREN. And you show an increase in revenue much in excess of the theoretical increase in rates?

Mr. TINGLEY. More than double.

Mr. WARREN. During the war period?

Mr. TINGLEY. Yes, sir.

Mr. WARREN. And now this year, with the restoration of normal traffic conditions, you show an increase of—

Mr. TINGLEY. About 7 per cent.

Mr. WARREN. Over last year?

Mr. TINGLEY. Yes.

Mr. WARREN. Over the war period?

Mr. TINGLEY. Yes.

Mr. WARREN. I suppose, of course, you are pretty well satisfied with the increase, which has not affected your traffic?

Mr. TINGLEY. Yes, sir; absolutely.

Commissioner MEEKER. Of course, you can not tell what the traffic would have been if you had still the 5-cent fare?

Mr. WARREN. If we could hold all of the traffic and get a 6 or 7-cent fare, we would be reasonably satisfied.

Commissioner BEALL. Is not that a section—through Chester and that territory—where people are compelled to ride more than usual?

Mr. TINGLEY. I would not say more than usual; no, sir.

Commissioner BEALL. It seems so to me. I know that section, and you have long stretches there.

Mr. TINGLEY. It is a long stretch. It is 6 miles from the city line of Philadelphia to the center of Chester.

Commissioner BEALL. But the distribution is such between the factories and the residential sections that I think that more than

ordinarily people are compelled to ride. Does not that in part account for—

Mr. TINGLEY. That would account for the great increase during the war period.

Commissioner BEALL. If the city there was round in shape, and the residences radiated out from it, it would not be so good?

Mr. TINGLEY. That was true all during the war period, because many of the employees of the Baldwin Locomotive Works and the Remington Arms Co. lived in Philadelphia and rode down. In fact, the travel there was so enormous that the Government spent over \$1,000,000 in building a second track on that Darby pike, and we made no protect against the jitneys which were simply flooding the pike, because we simply could not handle the people that were offering.

Commissioner BEALL. Is not your situation there a little more favorable than the average situation?

Mr. TINGLEY. Yes, sir.

Commissioner BEALL. With a similar population. That is the point I wanted to bring out.

Mr. TINGLEY. But now the Remington Arms Co. is closed down entirely. I do not think there is anybody in there but a few clerks and storekeepers who are supervising the removal of the machinery and the necessary guards to protect the plant.

In Wilmington, there is a different situation. Their industries are right plumb in the city.

Commissioner SWEET. The shipbuilding industry, is it not?

Mr. TINGLEY. Yes; and that work is going on, although not at the speed that it was during the war.

Commissioner SWEET. No.

Mr. TINGLEY. Of course, the Pusey & Jones people have been in financial difficulty and have had to curtail their activities considerably.

Now, taking the Altoona situation. In April, 1917—

Commissioner SWEET. Before taking up that situation, let me ask you this one question in regard to the Wilmington and Chester section: How do you account for the fact that your earnings this year, under the apparently adverse conditions, are better than they were last year under such favorable conditions?

Mr. TINGLEY. Well, the community is prosperous. The working-man is receiving the highest wage he ever received in his life, and he is perfectly willing to spend it.

Commissioner SWEET. There are not so many people to ride?

Mr. TINGLEY. No.

Commissioner SWEET. How about the jitneys? Have they gone out of business?

Mr. TINGLEY. The jitneys have gone out of business. They disappeared with the signing of the armistice.

Commissioner SWEET. So that you are getting now the business that they were doing?

Mr. TINGLEY. Yes, sir.

Commissioner MEEKER. Did I understand you to say that your traffic this year is 7 per cent greater than it was last year?

Mr. TINGLEY. Yes, sir.

Commissioner MEEKER. Under the war conditions?

Mr. TINGLEY. Yes, sir.

Commissioner MEEKER. And last year there was an increase of 40 or 50 per cent over the preceding year?

Mr. TINGLEY. From 30 to 45 per cent.

Commissioner MEEKER. From 30 to 45 per cent?

Mr. TINGLEY. Yes; it fluctuates.

Commissioner SWEET. In gross income?

Mr. TINGLEY. In gross income.

Mr. WARREN. Not in traffic?

Mr. TINGLEY. Not in traffic. In gross income. It would have indicated, for a 20 per cent increase in rates, anywhere from 12 to 18 per cent increase in traffic. With your normal increase running from about 5 to 7 per cent, it meant a war increase of from 5 to 12 per cent. I am talking in very rough, round figures because I had not expected to go on the stand, and I am talking purely from memory, and my percentages may vary 1 or 2 per cent in either direction.

Commissioner SWEET. Well, the fare last year and the fare this year—

Mr. TINGLEY. Are 6 cents in each case.

Commissioner SWEET. They were the same?

Mr. TINGLEY. Yes, sir.

Commissioner GADSDEN. Mr. Tingley, what has been the history of the net?

Mr. TINGLEY. The history of the net is that it is very much smaller.

Commissioner GADSDEN. Explain that to the commission. I want to understand it myself. You have had some very substantial increase in business. Give us the history of your net results.

Mr. TINGLEY. In 1917, conductors and motormen on those lines were receiving, as I recall it, a maximum of 30 cents an hour. To-day, they are receiving 48 cents an hour, and all other labor has been increased proportionately.

The cost of coal at the power plant has more than doubled; and its having been a war situation—we could not cheese-pare on maintenance and upkeep. We simply had to do everything that we could to get the material to do it with. We have not been able to curtail expenditures, as we had, for example, in Scranton. There, we were able to curtail our expenditures in the way of maintenance and upkeep to the extent of \$150,000 to \$200,000 a year. That is deferred maintenance. It is accumulating, and it has to be taken care of, but we were able to avoid the expenditure of this money in these strenuous times. In this situation we were not able to do that, because, instead of being able to curtail the service, we had to materially increase the service.

Commissioner GADSDEN. So that, notwithstanding the increase in business—

Mr. TINGLEY. The net results were very materially less. I would not dare give you the figures, because I do not carry them in my head.

Mr. WARREN. In other words, the increase was all needed to maintain—

Mr. TINGLEY. More than all of it was needed. In 1916, the street-railway lines earned a surplus. In 1918, they earned a deficit.

Commissioner GADSDEN. Would it be fair to say then that the public got the benefit of all the increase, and not the stockholders?

Mr. TINGLEY. The public and employees got every penny of the increase.

Commissioner GADSDEN. Yes; I mean that.

Mr. TINGLEY. And then a little more.

Commissioner MEEKER. Mr. Chairman, I would like if Mr. Tingley would submit a brief statement summarizing the experience of the Wilmington and Chester and Darby line, giving the experience with the increase in fare and the increase in wages and the other expenses.

Mr. TINGLEY. I will be glad to do that, sir.

Mr. WARREN. Mr. Tingley, you started to speak of the Altoona situation.

Mr. TINGLEY. The Altoona situation, again, was affected by the war situation, Altoona being the great repair and manufacturing shops of the Pennsylvania Railroad; and due to the demands of the railroad they were unusually active, working, as a matter of fact, throughout 1916 and 1917 in three 8-hour shifts—continuous operation. In April, 1917, we did away with the tickets, which theretofore had been sold in large quantities, good for a 5-cent fare, at a rate of 4 cents. There was no protest, and no diminution in riding. We kept right on the abnormal growth, because riding had begun to increase. The curve kept ascending.

In April, 1918, we increased the fare from 5 to 6 cents; and the increases have averaged and are averaging right up to the present time from 30 to 35 per cent over the flat 5-cent fare of last year. So that the theoretical increase of 20 per cent has practically all been saved, and that is notwithstanding the fact that since the armistice was signed the activities in the shops have been curtailed. I do not know just what they are doing at the moment, but for quite awhile they were only working in two 8-hour shifts, instead of three.

Commissioner SWEET. How do you account for that, Mr. Tingley? How do you account for it?

Mr. TINGLEY. Enormous earnings. The men in those shops have more money than they ever dreamed of having. Some of those men, under General Order No. 27, received as high as \$1,000 in back pay.

Commissioner SWEET. Then it would indicate an increase in the riding habit?

Mr. TINGLEY. Yes. They have money, and they are spending it.

Mr. WARREN. Is it not true, Mr. Tingley, that if the present scale of wages general in the industry is maintained, people will feel better able to ride and pay higher rates of fare than they did in the time of the old 5-cent fare?

Mr. TINGLEY. Unquestionably. For example, we have a very beautiful park located about 3 miles out of the city, and on the Fourth of July we hauled more people out to that park than had ever been taken there in the history of the road.

The CHAIRMAN. What success did you have with the 5-cent fare prior to 1917?

Mr. TINGLEY. Well, that has always been a substantial, profitable property.

The CHAIRMAN. And the difficulty which now confronts you is due wholly to war conditions?

Mr. TINGLEY. Absolutely, sir; wholly. Well, I would not say to the war conditions, but wholly due to the increase in wages and material which, of course——

The CHAIRMAN. Which, of course, would not have come without the European war?

Mr. TINGLEY. Well, they were coming before the war came, sir. The war has simply hastened it and aggravated it. Wages were rising, and rising steadily, and have for the last 20 years.

Commissioner SWEET. Can you tell us what the relation is between the increase in earnings and the increase in expenses on the Altoona road?

Mr. TINGLEY. I would not want to do that from memory; no, sir. I will be glad to submit it.

Commissioner SWEET. If it would not be improper for you to give that information, I think we would be glad to have it.

Mr. TINGLEY. It is a matter of public record, and I will be glad to submit it.

Commissioner SWEET. All right. Thank you, sir.

Commissioner GADSDEN. Mr. Tingley, the figures that you have given for these various properties would seem to indicate that the income of that class of the population which is particularly given to car riding has been proportionately increased?

Mr. TINGLEY. Yes, sir.

Commissioner GADSDEN. So as to justify and encourage them to ride more, has it not?

Mr. TINGLEY. Yes, sir.

Commissioner GADSDEN. It would seem to carry with it, as a logical sequence, that they should be willing to pay more?

Mr. TINGLEY. I would think so.

Commissioner GADSDEN. In other words, it would seem to indicate that the car-riding class of the community has profited to a greater degree than any other class, in the increase in wages; is that your observation?

Mr. TINGLEY. That is my observation. And in the places where they have, unless the opposition has been stirred up politically, there has been no opposition.

Now, there is not the slightest semblance of opposition from anyone in the city of Altoona to that increase in rates. We operate also an interurban line there, and there was a complaint from a borough on the interurban line—not against the 6-cent fare, but it was a repetition of a complaint which the commission decided 10 years ago nearly, that that borough was discriminated against, because it paid 3 cents to get to Altoona, when the borough on the other side only paid 2 cents.

The CHAIRMAN. How many years had that company been profitably operating under a 5-cent fare?

Mr. TINGLEY. Well, of course, sir, it had a very heavy percentage of 4-cent fares prior to April, 1917. Oh, that road was built—well, as a matter of fact, the lines in the city of Altoona were originally a horse railroad. They were electrified, I think, in about 1893. The interurban lines were built about the same time, and they have always shown a reasonable return. They have never paid——

The CHAIRMAN. What dividends had you been paying, upon the average?

Mr. TINGLEY. Why, I would say—and, again, I am speaking from memory—it would average about somewhere between 6 and 7 per cent.

Commissioner SWEET. On the common stock?

Mr. TINGLEY. There is only one class of stock.

The CHAIRMAN. Did you also lay up a surplus?

Mr. TINGLEY. We had some surplus; yes, sir.

The CHAIRMAN. What was the extent of that?

Mr. TINGLEY. I could not answer that offhand, sir.

The CHAIRMAN. Did you likewise set aside a depreciation fund?

Mr. TINGLEY. Yes, sir.

The CHAIRMAN. Have you made a reasonable effort to protect that situation and take care of this large increase in operating costs?

Mr. TINGLEY. That road, sir, has the reputation of being one of the best-managed roads in the State of Pennsylvania; so much so that when the property over in Johnstown, about 40 miles away, got into trouble, the citizens and stockholders there came over and asked us if we would not come down to Johnstown and straighten them out.

The CHAIRMAN. Have you given any consideration to the use of the one-man car?

Mr. TINGLEY. Yes, sir; we have. There are two or three questions involved in the one-man car. We have not felt that it solved all of our questions. In the first place, for a company of that size, it would involve a very considerable expenditure of money to scrap rolling stock in thoroughly good operating condition and replace it with new rolling stock. In the second place, Altoona is a mountain town.

The CHAIRMAN. What is that?

Mr. TINGLEY. A mountain town, with very severe grades. And I am not yet satisfied in my own mind as to the advisability of operating a car with one man only on it under those circumstances.

Commissioner SWEET. What kind of power do you use there?

Mr. TINGLEY. Overhead trolley.

Commissioner SWEET. I mean how is the power generated—water power of coal?

Mr. TINGLEY. Oh, coal. There is no water power in that part of the State.

Commissioner SWEET. You get your coal cheaper than they do in most places; do you not?

Mr. TINGLEY. Coal is cheap; yes, sir.

Commissioner SWEET. What kind of coal do you use—anthracite?

Mr. TINGLEY. Bituminous.

Commissioner SWEET. Is that purchased in the immediate vicinity?

Mr. TINGLEY. Yes, sir; within 15 miles of the power plant.

Commissioner SWEET. How do your prices compare with your prices in Wilmington?

Mr. TINGLEY. Well, I think the difference in price between Altoona and Wilmington is about \$2.

The CHAIRMAN. Did you have to make a substantial reduction in the operating cost before it made you able to reduce your rates?

Mr. TINGLEY. Yes, sir.

The CHAIRMAN. What has been your percentage increase in your operating costs since the war?

Mr. TINGLEY. I could not answer that offhand, sir.

The CHAIRMAN. Have you substantially the same number of employees?

Mr. TINGLEY. Or more. There has been no radical change in the number of employees in the car service. Of course, during the war period there was a shortage of labor, and their shop force and track force were somewhat depleted, and the extra list was somewhat depleted, but that is coming back again.

The CHAIRMAN. These rates were allowed by the Public Service Commission of Pennsylvania?

Mr. TINGLEY. Yes, sir. That is, they went into force automatically, as there was no protest.

The CHAIRMAN. Have any petitions been filed with that commission asking for a reduction of those charges?

Mr. TINGLEY. No, sir; the community is entirely satisfied with it.

The CHAIRMAN. Do you feel that you could continue with these charges a rather indefinite period without any public protest?

Mr. TINGLEY. I do; yes, sir.

Mr. WARREN. May I interrupt just a minute, Mr. Chairman, to say that before you came in Mr. Tingley explained the situation there, and I think it might be of interest to you to turn briefly to it—

The CHAIRMAN. Well, I will read the record. I would not ask him to repeat it.

Can you conveniently file with us a statement of your operating sheets for the years 1918, 1917, and 1916?

Mr. TINGLEY. Yes, sir.

The CHAIRMAN. And with that a statement showing the increase in dollars in the wage account, for fuel, material and supplies.

Mr. TINGLEY. That latter is rather a large order, sir.

The CHAIRMAN. Is it? I supposed that you were so much interested in that that you had it all at your fingers' ends.

Mr. TINGLEY. Well, to describe it in that fashion.

The CHAIRMAN. I do not want you to go into too much detail, but I think it would be helpful to this commission if you had some concrete figures on that question. It is one thing to make a statement that there has been a large increase in the cost of wages, materials, supplies and fuel, and another thing to have the figures to back it up. I think it would be well for you to give some attention to that, Mr. Warren.

Commissioner SWEET. Is the Altoona Co. paying legitimate expenses now and any more than that?

Mr. TINGLEY. In 1918, it earned a small surplus—a very small surplus. That was due almost entirely, as I recall the figures, to the fact that it leases and operates the electric-lighting plant in the borough of Tyrone, which had a net earning of about \$30,000.

Mr. WARREN. Do you mean to say a surplus after paying dividends?

Mr. TINGLEY. No, sir.

Mr. WARREN. A surplus over fixed charges?

Mr. TINGLEY. A surplus over fixed charges.

Commissioner SWEET. That was the combined property?

Mr. TINGLEY. Yes, sir.

Commissioner SWEET. The lighting property would be somewhat more profitable?

Mr. TINGLEY. Yes, sir.

Commissioner SWEET. Than the traction property?

Mr. TINGLEY. Yes, sir.

Commissioner GADSDEN. Mr. Tingley, will you give the commission some idea of the increase in the freight rate on coal, we will say, put on by the Government?

Mr. TINGLEY. I could not give you that offhand, Mr. Gadsden.

Commissioner GADSDEN. You could not?

Mr. TINGLEY. No.

The CHAIRMAN. In your experience, do you feel that your company could get along all right under the commission form of regulation, where that body has the power to fix just and reasonable rates, according to the operating conditions?

Mr. TINGLEY. That would depend, sir. I will answer you in this fashion: Under the Pennsylvania law and under the New Jersey law, with one slight modification, yes, if you could persuade those bodies to act with reasonable promptness.

The CHAIRMAN. You have difficulty in getting prompt action from your commissions?

Mr. TINGLEY. The Pennsylvania Commission has no power to suspend a rate until after a complaint and hearing, or upon its own motion and hearing, and consequently the rate may become effective in 30 days after you file it. In New Jersey the commission has the power, and has exercised it very freely, to suspend the rates for 120 days. The result is that the commission was small until increased by the last session of the legislature—only three members, and it was increased to five—and the calendar was crowded, and it took you anywhere from six to nine months to get a decision. In the meantime the patient died.

The CHAIRMAN. Well, did the patient die in New Jersey?

Mr. TINGLEY. Well, I have in mind two with which I am connected which would have died if the holding company had not gone down into its surplus account to the extent of three or four hundred dollars and put it out to take care of it. If they had been independently operated properties, they would have been in the hands of a receiver within 60 days of the application to the commission for relief.

The CHAIRMAN. But your experience in Pennsylvania has not been unsatisfactory.

Mr. TINGLEY. No, sir. I think the Pennsylvania law is as nearly a just and equitable law as can be drawn to both the companies and the public, with possibly the exception, from the public point of view, that their power over security issues is limited.

The CHAIRMAN. Is your criticism of the New Jersey Commission based upon its judgment in passing upon rate questions or simply on its delay in making an order?

Mr. TINGLEY. Its delay in making an order.

Commissioner SWEET. The only very important difference, I take it, is that in New Jersey the raise is not made pending an investigation and decision.

Mr. TINGLEY. Yes.

Commissioner SWEET. Whereas in Pennsylvania it is?

Mr. TINGLEY. Yes, sir. That, I think you will appreciate there, is the just process, because the commission can, on complaint, say to

the railroad company, "You must issue rebate slips for this"; to the electric light and power company, "You must stamp your bills to the effect that if this rate is approved you will refund it," and so on; and the consumer is not hurt. The consumer can get his, but if the rate is suspended, even though it be declared just and reasonable at the end of the hearing, six months hence, the company has lost that money and can never get it back.

The CHAIRMAN. There has been a good deal of discussion here about the cost-of-service plan. In your judgment, which system will give the greatest public satisfaction—the increase of a rate automatically under your cost-of-service plan as your costs of operation go up, or an increase ordered by a State commission after a hearing in which parties can be heard?

Mr. TINGLEY. I have had no experience, sir, with the cost-service plan. I can only look at it from the outside, and as I have seen it working in Cleveland from the outside, it seems to me that the company there does not get the full benefit that they were supposed to get. In other words, the tendency of the council that regulates this reserve fund is to keep down the allowance for maintenance and other purposes and to avoid an increase in fare which would be unacceptable to the public.

The CHAIRMAN. Of course, you are answering these questions from the standpoint of the company?

Mr. TINGLEY. Yes.

The CHAIRMAN. I am trying to get your point of view from the public standpoint.

Mr. TINGLEY. Well, I do not believe, sir, it will make very much difference from the public standpoint, one way or the other. Human nature is very much the same everywhere. We are all a little bit selfish, and we want to get what we get as cheaply as we can get it; and the public will feel temporarily—it won't last long—that some injustice has been done when the fare is increased, no matter whether it comes through automatic ordinance or through an order of the commission.

The CHAIRMAN. Is it not pretty well understood that our people feel very much better if they get something off their stomachs once in a while through a proper tribunal?

Mr. TINGLEY. Oh, sure. I think there is no question about that, and I believe thoroughly that in those hearings they should be given the greatest possible latitude to ease their minds.

The CHAIRMAN. But there are no hearings provided for in the cost-of-service plan.

Mr. TINGLEY. No.

Commissioner GADSDEN. Mr. Tingley, is it not a fair criticism of the commission regulation that there is delay in arriving at the results?

Mr. TINGLEY. Yes, sir.

Commissioner GADSDEN. And while the opportunity is being afforded the public to get something off its stomach, the railway is paying for it?

Mr. TINGLEY. Yes, sir; that is true.

Commissioner GADSDEN. Now, if that could be remedied, a very serious criticism of commission regulation, so far as the railways are concerned, would be disposed of, would it not?

Mr. TINGLEY. You can escape that by applying the provisions of the Pennsylvania law to the case.

The CHAIRMAN. That is the law in quite a number of States.

Mr. TINGLEY. Yes.

Commissioner MEEKER. Is your criticism of the Cleveland so-called service-at-cost plan that it is not a service-at-cost plan? If it does not provide enough for depreciation, it certainly is not a service-at-cost plan.

Mr. TINGLEY. No, sir; and it is exceedingly difficult to get a true service-at-cost plan, because there always will be that tendency of the city council to keep down the allowance for these expenditures.

Commissioner MEEKER. Do you think that—

Mr. TINGLEY. You see now, under the Cleveland plan, they are allowed so much a car-mile for maintenance. Now, they have always starved the company on that maintenance item. If you take their annual report from the time of the inception up to the present time and compare their actual expenditures with the allowances made for those purposes, you will find that in practically every year since that thing was instituted, the actual expenditures have exceeded the allowances by the council.

Commissioner MEEKER. Do you think that is likely to be the case in any service-at-cost plan that might be devised?

Mr. TINGLEY. Well, there is the most notable example of the service-at-cost plan, and that is the way it has worked there.

Commissioner MEEKER. Do you think commission control as under the Pennsylvania law would be a satisfactory service-at-cost plan so far as you know it?

Mr. TINGLEY. I do, sir; for the simple reason that in the service-at-cost plan the city council or the city authorities, by whatever name they are called, are prosecuting attorney, judge, and jury; and the three offices are incompatible.

Mr. WARREN. Mr. Tingley, would not that objection be lessened in case of the administration of the service-at-cost by the State commission in cases where the State commission has sufficient jurisdiction, to change this so-called contractual franchise?

Mr. TINGLEY. I do; yes, sir.

Mr. WARREN. They would be apt to administer it without that selfish purpose.

Mr. TINGLEY. Yes, sir.

Mr. WARREN. That is bound to influence the other party to the contract.

Mr. TINGLEY. Yes, sir; but then you are back to State-commission regulation.

Mr. WARREN. Yes; but there might be a State-commission regulation with an automatic sliding scale.

Mr. TINGLEY. Yes, sir.

Mr. WARREN. When once approved by the State commission—

Mr. TINGLEY. If that is workable under the State laws. I am not a lawyer, but I am advised that that could not be done, for example, in the State of Pennsylvania.

Mr. WARREN. You mean without more legislation.

Mr. TINGLEY. Without more legislation.

Mr. WARREN. But I rather think this commission is proceeding somewhat on the theory—we certainly are—that legislative obstacles

should not interfere with our consideration of the best method, because these contractual franchises are an absolute obstacle to the service-at-cost plan, unless the parties are willing to change it.

Mr. TINGLEY. Yes, sir.

Commissioner SWEET. How many members are there on the Pennsylvania Commission?

Mr. TINGLEY. Seven.

Commissioner SWEET. How are they appointed?

Mr. TINGLEY. By the governor, for 10 years.

Commissioner SWEET. Is there any provision in regard to their not all being from one political party?

Mr. TINGLEY. No, sir.

Commissioner SWEET. How do they stand at the present time?

Mr. TINGLEY. At the present time there are, I think, six Republicans and one Democrat.

Commissioner SWEET. The Democrat leavens the whole lump, I suppose? [Laughter.]

Commissioner MEEKER. It is hard to find a Democrat in Pennsylvania.

Mr. WARREN. It sounds like a Pennsylvania situation, doesn't it?

Mr. TINGLEY. As near as I can recall, there always has been one Democrat on the commission.

The CHAIRMAN. I was wondering if they would be as liberal as that down in Texas.

Commissioner SWEET. How many members are there on the New Jersey Commission?

Mr. TINGLEY. Five.

Commissioner SWEET. And what is the situation there?

Mr. TINGLEY. Well, at the present time, there are four Republicans and one Democrat. Up until a year ago, when the commission was composed of three, there were two Democrats and one Republican.

Commissioner SWEET. You say their calendar was somewhat overloaded, so that they did not get on with their work.

Mr. TINGLEY. Yes, sir. Of course, the New Jersey Commission has rather an insufficient appropriation for their work.

Commissioner SWEET. Has there been any difficulty of that kind in Pennsylvania?

Mr. TINGLEY. No, sir.

Commissioner SWEET. The Pennsylvania system has a tendency to give the commission less work, does it not?

Mr. TINGLEY. Yes, sir.

Commissioner SWEET. Than the New Jersey system?

Mr. TINGLEY. Yes, sir; and then, further, the commission, of course, practically never sits in a body except to hear argument. Your case is never argued at the time you take the testimony. The commission sits once a month to hear argument. In Pennsylvania, the taking of testimony is apportioned among the seven commissioners; and if the calendar gets a little congested they can depute their attorney or one of their engineers as an examiner to take the testimony; and you can have 8 or 10 hearings going on at once. That is not true in New Jersey. They usually sit as a body. Occasionally they will split up and sit one commissioner at a time.

Commissioner SWEET. The Pennsylvania Commission keeps pretty well up with its work; does it?

Mr. TINGLEY. Yes.

Commissioner SWEET. So that the delays which you regard as a serious objection do not occur so much in Pennsylvania?

Mr. TINGLEY. No, sir.

The CHAIRMAN. New Jersey is so small that if you divide the commission up and have hearings in different parts of the State, it might find itself outside of its own domain. [Laughter.]

Mr. TINGLEY. New Jersey is peculiar in this situation, too—that they have three great big companies: the Public Service Railway, the Public Service Electric, and the Public Service Gas, which overshadow, outside of the steam roads, everything else in the State. While there are many small companies serving them, still those three big companies overshadow all the rest of the State, and naturally get a larger percentage of the commission's time than some of the others think they are entitled to.

Commissioner SWEET. Are you going to tell us about some of those other properties that you are connected with?

Mr. TINGLEY. Well, I could go on for a considerable length of time, if it is interesting, sir.

Mr. WARREN. I would like to ask you to go on at least to one matter—as to the increase of rates, and the effect of the increase of rates on the traffic. You have mentioned three now. Altoona was the last one.

Mr. TINGLEY. Yes.

Mr. WARREN. If there are other instances where you have increased rates, I would like to have you inform the commission as to the effect of them.

Mr. TINGLEY. In all of the other properties, the increases in rates have not produced any diminution in travel, with the exception of Joliet, Ill. There the city itself is small. On the interurban line extending from Joliet to Chicago, the increase to the maximum rate of 2 cents a mile under tickets and 3 cents a mile under cash, has not produced much if any effect on the travel. We have continued to get our normal increase. In the city of Joliet, however, where we went from a 5-cent fare to a 7-cent fare, owing to the smallness of the city and the infrequent service which the population would sustain, there has been a substantial diminution in travel. Now, just what the percentage was I could not tell you offhand. It has produced an increase in gross revenue, but not at all proportional to the increase in rate.

Commissioner SWEET. In Joliet, was there a popular dissatisfaction?

Mr. TINGLEY. No, sir. There was some. There was an effort on the part of one or two labor agitators to make it a political issue, and they took a complaint to the public-service commission, and the rate was sustained. Then they took it into the mayoralty election, and they were defeated; and since then we have heard nothing from it.

Commissioner SWEET. But even there, as I understand it, there has been an increase in revenue.

Mr. TINGLEY. There has been an increase in revenue, though not nearly proportional to the increase in rate.

Mr. WARREN. But in each instance, the increase in revenue has been—

Mr. TINGLEY. Has been proportional to the increase in rate.

Mr. WARREN. So you would say to the commission, would you, Mr. Tingley—because I think this is an important point in the investigation, at least it seems so to me—that the increase in rates is justified as a measure by which to increase the revenue of these companies which are so hard pressed now?

Mr. TINGLEY. I think it is the only quick remedy that can be had, sir.

Mr. WARREN. And you have confidence in its effectiveness?

Mr. TINGLEY. Yes, sir.

Commissioner MEEKER. Can you file a statement covering that Joliet situation?

Mr. TINGLEY. Yes, sir.

Commissioner MEEKER. Along with the other statements.

Mr. TINGLEY. Yes, sir.

Mr. WARREN. I am very much obliged to you, Mr. Tingley, and unless the commission has some further questions, I will ask that you be excused.

The CHAIRMAN. You are excused.

Mr. WARREN. Mr. Barry, will you take the stand, please?

STATEMENT OF MR. JOHN G. BARRY.

The CHAIRMAN. What is your name, sir?

Mr. BARRY. John G. Barry, sales manager of the General Electric Co., Schenectady, N. Y.

Mr. WARREN. This next witness, Mr. Chairman—the next three witnesses will be manufacturers, producing supplies very largely used by street railways. I have no objection to your asking them any questions to aid in your investigation, but I am merely calling them for the purpose of giving you information as to the increased cost of such supplies, and not as experts on street-railway methods.

The CHAIRMAN. We are very glad to have that testimony.

Mr. WARREN. Mr. Barry, your full name?

Mr. BARRY. John G. Barry.

The CHAIRMAN. And what is your occupation?

Mr. BARRY. I am sales manager for the General Electric Co., with headquarters at Schenectady, N. Y.

Mr. WARREN. And you have been with that company how long?

Mr. BARRY. Twenty-eight years.

Mr. WARREN. In your position, is it a part of your duty to fix all prices of railway supplies—electrical supplies—produced by the General Electric Co.?

Mr. BARRY. That is a portion of my duty.

Mr. WARREN. You are familiar with the course of the prices of electrical supplies purchased by electric railways, are you?

Mr. BARRY. Yes.

Mr. WARREN. I think perhaps, Mr. Barry, you should go right on without my questioning you and tell the commission how the chief articles are sold, what the prices are, and how they have increased.

Mr. BARRY. Yes; I have prepared certain data here on railway motors and car equipment. By "car equipment" I mean all of the electrical material that is used on a car, including motors, controllers, trolleys, cable, circuit-breakers, and so forth.

In 1914, the selling price of a four-motor equipment, consisting of 25-horsepower motors, with control, was \$1,450. In 1915, it was the same. In 1916, it had increased to \$1,850, or an increase of 28 per cent. In 1917, the price was \$2,275, an increase of 57 per cent over the 1915 price. In 1918, the selling price was \$2,900, or an increase of 200 per cent over the 1914-15 price.

Mr. WARREN. That blue print shows that in graphic form.

Mr. BARRY. This shows the increase from year to year, but I have read it off there from the statement, showing the selling prices. This shows it in percentages.

Mr. WARREN. I just handed the commission my copy of the blue print.

Mr. BARRY. Yes. Now, that particular size of equipment is indicative of the prices of all car equipment of all sizes.

Mr. WARREN. I notice that your figure for 1919 shows a slight drop, Mr. Barry.

Mr. BARRY. Yes. In the early part of 1919, there was a drop in prices of certain materials entering into the manufacture of this equipment, such as copper. Copper dropped from 23 cents, which was the price established by the Government during the war time—that is, the latter part of the war period. Copper dropped to between 15 and 16 cents during February or March of this year. Steel also went off some. That caused a reduction in the prices of car equipment, although not anything like the increases that had gone into effect, because there was no reduction—in fact, there was an increase in labor costs.

Now, at the present time, it looks to me like prices will be somewhat increased, due for one reason to the fact that copper has now gone back from between 15 and 16 cents to 22 to 23 cents, and copper is one of the largest raw materials that we use in electrical apparatus. I am informed that copper has taken a very rapid and sudden advance in the past 10 days, going from 18 to 22.5 or 23 cents.

The CHAIRMAN. What has become of this vast quantity of copper which the Government had in store, Mr. Barry?

Mr. BARRY. Well, I understand that a great deal of that copper has already been purchased—oh, that the Government had in store, you mean?

The CHAIRMAN. Yes.

Mr. BARRY. Well, I don't know, I am sure; but it was reported in the early part of this week that there was a very large amount of copper on hand in the hands of producers, but I believe that a very considerable portion of that has already been bought for foreign use.

Mr. WARREN. In other words, the market has caught up with that temporary drop, due to the armistice, in the price of copper, entirely?

Mr. BARRY. Yes; copper, as I say, is back to the figure where it was put by the Government at the time the armistice was declared.

Mr. WARREN. Is there anything further that you want to say on that?

Mr. BARRY. Now, the next article that I have prepared data upon is the electric motors used by quite a number of electric railways, particularly interurban lines; and these have increased from the 1914 basis 100 per cent. In 1915, they increased 70 per cent. In 1916, the increase was 31 per cent, and in 1917, the increase was 82 per cent. In 1918, it was 101 per cent; and in 1919 it is 97 per cent.

The CHAIRMAN. What was the first figure there?

Mr. BARRY. In 1914 the price was \$13,700.

The CHAIRMAN. \$15,700?

Mr. BARRY. \$13,700.

Commissioner SWEET. And it is what now?

Mr. BARRY. \$27,000; that is, for a locomotive of 50-ton weight.

Mr. WARREN. There is a slight drop, I notice there, in 1919, as there was in the case of car equipment. Is that probably due to the same thing?

Mr. BARRY. On all of this, you will find that there has been a slight drop in the first few months of 1919. That is applicable to all electrical material, I think.

Mr. WARREN. And in your opinion, it is only temporary?

Mr. BARRY. In my opinion, it is only temporary.

The CHAIRMAN. Do you mean by that that these high costs of locomotives and other material will continue for a long period of years?

Mr. BARRY. Well, I could not say for a long period of years, but they will continue, in my judgment, for at least a year. They will continue while materials are at the price they are now and while labor is at the price at which it is now, and I do not look for any reduction in either.

The CHAIRMAN. Within a year?

Mr. BARRY. No, sir.

Mr. WARREN. During the year?

Mr. BARRY. Within a year.

Mr. WARREN. Within a year.

The CHAIRMAN. Do you expect a falling off in the price of materials and labor after the year has passed?

Mr. BARRY. Well, I don't know. I can not express an opinion on that. I do not believe labor is going to fall off, unless the cost of living falls off very materially.

Mr. WARREN. What is your next item?

Mr. BARRY. In the matter of power apparatus, the electrical companies furnished a large number of rotary converters for substation operation. These rotaries have increased very substantially, but not to the marked extent of car equipment. This data shows that in 1914—we have taken as an example a 300-kilowatt rotary converter—our selling price was \$2,350. In 1915, it was \$2,400. In 1916, it was \$2,900. In 1917, it was \$3,875. And in 1918, it was \$4,225; and that price practically prevails to-day—very little lower. That means an increase in that class of apparatus of 79 per cent over the 1914 prices.

Commissioner MEEKER. How do you explain the lower rate of increase of this type of apparatus as compared with the other?

Mr. BARRY. The explanation of that, Mr. Commissioner, I think, is this, that in certain classes of apparatus while, of course, the basic prices of materials—copper, and so forth—would be the same, the percentage of labor as applied to certain classes of apparatus is higher or lower than in other classes. The percentage of labor involved in the building of a railway rotary converter, the percentage of the total cost, is less than it would be in the case of a railway motor.

Commissioner MEEKER. Then it is the labor costs that make the greater increase?

Mr. BARRY. Yes. The railway companies, of course—many of them—have got to generate their own current. We furnish a machine known as a steam turbine generator. The prices of this class of product have been increased, in the case of a 1,000-kilowatt turbine, from a price of \$12,750 in 1914 to \$24,000 in 1918. The price is \$23,000 to-day.

Commissioner MEEKER. Do these prices represent the actual selling price, or are they the list prices?

Mr. BARRY. Oh, these are——

Commissioner MEEKER. Are these prices subject to discounts?

Mr. BARRY. No; these are actual net prices on this particular piece of apparatus.

Commissioner MEEKER. And that is true of all of your prices?

Mr. BARRY. That is true of all of these prices.

Commissioner MEEKER. So the discounts would not enter into it to explain any of the difference in the rate of increase in prices?

Mr. BARRY. No; these are all net prices that I cite, and I have taken a certain specific capacity of machine, and all the machines are of the same kind.

On motor generator sets, which are also used to a considerable extent by railway companies, our prices increased from 1914, on a particular machine, costing \$3,600, gradually up to 1919, to \$6,200, or 72 per cent.

Commissioner MEEKER. May I suggest that it would help us in interpreting these graphs that you put in, if you give us the actual prices as well as the percentages?

Mr. WARREN. Yes. Can you leave your copies?

Mr. BARRY. Oh, yes; I will leave them.

Mr. WARREN. I was following your testimony with this copy.

Commissioner MEEKER. As I understand it, we have the percentage of increase here, but we have not the actual prices except as we have written them off.

Mr. BARRY. Here is the explanation of each one, showing the actual amounts.

Commissioner SWEET. Mr. Barry, I suppose it is none of our business what profit the General Electric Co. makes on this stuff, but if you do not object to telling us, I would like to know whether the profit has been substantially the same during this period from 1914 to 1919.

Mr. BARRY. I can assure you that the profits have not been any greater during the war period than they were during the previous years—that is, the percentage of profit obtained by us.

Commissioner SWEET. In the profit on a percentage basis, do you mean a percentage cost?

Mr. BARRY. We usually figure our selling price on a certain percentage over our cost.

Commissioner SWEET. Then in dollars the actual profit in 1919 would be greater on some of this material than it would be on the same material in 1914?

Mr. BARRY. In dollars, the profit would be greater, because your selling price has been increased. If you sell your machine in 1914 for \$2,000, you get a certain amount of profit.

Commissioner SWEET. I understand.

Mr. BARRY. And if you sell it in 1918—

Commissioner SWEET. You would get the same percentage of profit?

Mr. BARRY (continuing). The same percentage of profit would apply.

Commissioner SWEET. But it would be more proportionately in dollars?

Mr. BARRY. Yes, sir.

Mr. WARREN. That is, I suppose, because it requires much more working capital to produce it?

Mr. BARRY. Yes, it does; and the volume of business has dropped off very substantially. While you get more profit on a single machine, you have been selling a great many less machines.

The CHAIRMAN. You have given some very striking figures here, showing the increase in cost of machinery and so forth, during the past two years particularly.

Mr. BARRY. Yes.

The CHAIRMAN. As a matter of fact, have you sold much of this equipment to the utilities during this period?

Mr. BARRY. We have prepared figures along this line, showing that in a normal year—and I mean by a normal year 1912, 1913, and 1914—our company's business with the railway companies aggregated from eighteen to twenty million dollars of materials and supply parts. During the years 1917 and 1918, our business with the railway companies amounted to approximately \$9,000,000 per year. In other words, it was cut to less than half in money amount, but due to these increases in the selling price, the output of this class of apparatus was reduced to about 25 to 30 per cent of our normal sales.

The CHAIRMAN. That is what I expected.

Mr. BARRY. Now, during 1917 and 1918, whereas, I say we did business up to about \$9,000,000, a considerable amount of that business was financed by the Emergency Fleet Corporation—where equipment had to be furnished to certain roads. A good example is the Philadelphia Rapid Transit Co. They had to supply about 125 or 150 cars additional to their ordinary equipment to supply service to the Hog Island shipyard. Now, we made a contract with the Philadelphia Rapid Transit Co. for that equipment, but I have reason to believe—in fact, I am sure—that the money was provided by the Emergency Fleet Corporation on some basis or other. That is true of other roads, like Baltimore, the Bay State road of Massachusetts, and several other large properties that have to serve shipbuilding industries.

The CHAIRMAN. Have the utilities which have not been affected by war industries purchased much equipment during the last two years?

Mr. BARRY. They have not, Mr. Commissioner. They would like to purchase equipment, but unfortunately, they are not in a position to get the equipment. Their credit is gone.

The CHAIRMAN. Are there many orders for new business filed by the utilities?

Mr. BARRY. There are orders filed by certain utilities. Take the Brooklyn Rapid Transit Co., which is now in the hands of a receiver.

They have recently ordered quite a large amount of motor equipment but, by and large, the business is very poor.

The CHAIRMAN. How does new business now compare with the normal period for, say, the first six months of this year?

Mr. BARRY. Our business for the first six months of this year is, I should say, 30 per cent of our normal business—say, during the years 1913, 1914, and 1915.

Mr. WARREN. Are you speaking of the utility business or all of your business?

Mr. BARRY. No; I am speaking of the railway business.

Mr. WARREN. The railway business?

Mr. BARRY. The railway business alone. You were speaking of the railway business or the general business?

The CHAIRMAN. I was speaking of your general business.

Mr. BARRY. Oh, the general business?

The CHAIRMAN. That is, I was in my last question.

Mr. BARRY. Yes. Well, our general business is about 75 to 80 per cent of what it was last year.

The CHAIRMAN. Well, the last year was not a normal year.

Mr. BARRY. I thought you asked me how it would compare with last year.

The CHAIRMAN. No; I asked you how your general business for the first six months of this year would compare with the same period during normal years.

Mr. BARRY. Our business for the first six months of this year—our total business—has been practically normal.

The CHAIRMAN. But the business with the utilities has been about 30 per cent normal?

Mr. BARRY. Thirty per cent.

Now, the increase is due mostly to industrial plants. Many central-station plants are adding to their equipment, and that has offset the reduced business from the railway companies.

Mr. WARREN. Mr. Barry, right in that connection on the amount of business done with railway companies—I suppose that in some cases the companies had stocked up to a greater or less extent to supply their needs before the war, had they not? Such things as entered into their operating expenses, they would carry more or less of on hand; would they not?

Mr. BARRY. Well, not any great amount.

Mr. WARREN. Not any great amount?

Mr. BARRY. No. We ordinarily do carry a considerable stock on hand, but in 1914—

Mr. WARREN. I do not mean that you were stocked up. I mean the companies.

Mr. BARRY. Oh, the railway companies?

Mr. WARREN. Yes.

Mr. BARRY. Well, the railway companies previous to the war period, of course, did keep a considerable stock, especially of supply parts or repair parts.

Mr. WARREN. So that during the last two or three years, by using what they had on hand and by restricting themselves to the lowest point in what they did, they could drift along on these small purchases that you have mentioned?

Mr. BARRY. Yes. Of course, they have been buying as a sort of hand-to-mouth proposition.

Mr. WARREN. But that means that, sooner or later, they will have to buy in larger quantities, if they can get the money to pay for it?

Mr. BARRY. Yes; or else break down the railways, I imagine.

Mr. WARREN. Yes.

The CHAIRMAN. Perhaps they are like a good many people—they are waiting for prices to fall. I think most of us are beginning to think that it is not worth while to wait much longer.

Mr. BARRY. I think for the first three months of this year it was the general impression of all purchasers of large apparatus, by and large, outside of railways, that there would be a marked reduction in prices, and buying was held off. There was a slight reduction. I think it is the opinion of the trade generally that there will not be a marked reduction—that prices, instead of going down, will likely go up; and, therefore, during the past three months, business has been improving very substantially.

Mr. WARREN. Have you some other items there, Mr. Barry?

Mr. BARRY. Yes; I have some data on supply parts which railway companies must have. They can probably get along without having to buy actually entire new equipment to put on new cars, but they must have certain material—gears and pinions, which is a wearing article. Our prices on gears and pinions have increased from 1914, when the gear and pinion cost \$14, to \$34.60 in 1918, and \$31.82 in 1919.

Mr. WARREN. That was an increase of how much, what percentage?

Mr. BARRY. That was a total increase from 1914 to the present time of 127 per cent.

Commissioner MEEKER. Do the labor costs enter very largely into these costs?

Mr. BARRY. Not so great there. That is largely a special grade of steel used in a railway motor and pinion—a special high-grade steel.

Commissioner MEEKER. I am interested in the statement you made a moment ago that the greater increases occurred in the types of apparatus into which the labor cost entered most largely. Is it your experience that the wages of labor have increased to a greater extent than prices of materials?

Mr. BARRY. I should say that, by and large, the increase in both has been approximately 100 per cent.

Commissioner MEEKER. It would seem to me, if that is the case, that your explanation of your answer to my former question is hardly correct.

Mr. BARRY. As applicable to this gearing?

Commissioner MEEKER. You stated, as I understood it, that in those types of equipment and apparatus in which your labor enters most largely, the increase in prices had been greatest.

Mr. BARRY. Yes.

Commissioner MEEKER. Now, if labor has increased at about the same rate as the cost of materials, I do not see that it would make any difference.

Mr. BARRY. Well, I tried to explain that in certain classes of apparatus, the percentage in cost of labor is not as great. That is, you do not have to perform as much labor on certain classes of

apparatus as you do on other classes. For example, on a rotary converter, which involves large castings, the percentage of the labor cost of that rotary converter to the total cost of the rotary converter is considerably less than would be the percentage of labor cost to a railway motor, which involves a considerable amount of hand work.

Commissioner MEEKER. Yes. Now, if the cost of labor has increased 100 per cent, let us say, and the cost of materials has increased 100 per cent, why would not the cost of both types of apparatus increase approximately 100 per cent? Instead of that, in one case it has increased 100 per cent and in the other only some 79 per cent.

Mr. BARRY. Because there is simply not as much labor used on a large machine as there would be on a small machine.

Commissioner MEEKER. I do not think it is worth while pressing the point any further. I did not quite see, if the rate of increase is the same on all elements entering into the cost of the final product why the increase would not be the same in each case.

Mr. BARRY. Suppose you had a machine—

Mr. WARREN. Does the overhead expense have anything to do with it? How is the overhead figured?

Mr. BARRY. The overhead expense on large machinery which involves a considerable expense in tools is somewhat greater than on small stuff.

Mr. WARREN. What is it figured on—labor or the materials, or both?

Mr. BARRY. The overhead is figured on labor.

Mr. WARREN. So that in any item where labor enters less into the total cost the overhead would be less; would it not?

Mr. BARRY. Yes; that would apply to overhead; the percentage of overhead is applied only on direct labor.

Mr. WARREN. So if you had something that was largely material and only to a small extent labor that you applied in your own shop, then the overhead on that particular item would be very much less?

Mr. BARRY. It would be correspondingly reduced.

Mr. WARREN. Does that explain the difference somewhat, Mr. Barry?

Mr. BARRY. Yes; that would explain it to a certain extent.

Now, on what we term overhead line materials—that is, hangers, and so forth, that are furnished to railway companies for their overhead line—this material is largely composed of malleable iron. Malleable iron took a tremendous advance during the war period, much more so than about any other product; so that on the basis of malleable iron—100 per cent in 1914—it has run up to 350 per cent in 1919.

Transformers used with substation apparatus have increased from 100 per cent in 1914 to 178 per cent in 1918.

Switchboards have increased from 100 per cent to 182 per cent, 1914 to 1918.

Commissioner MEEKER. That is, it is an increase of 82 per cent?

Mr. BARRY. Eighty-two per cent; yes. So taking all of those, the average cost of all electrical material used by the railroad companies has increased from 1914 on a 100 per cent basis to 204 in 1918 and 197 per cent in 1919.

Commissioner GADSDEN. One hundred and ninety-seven per cent is the average increase?

Mr. BARRY. Well, 97 per cent is the increase.

Mr. WARREN. And that is all the apparatus you have referred to?

Mr. BARRY. That I have previously cited. It simply throws it into an average.

Mr. WARREN. Can you leave the statements with the figures accompanying those blue prints with the commission?

Mr. BARRY. Yes; surely.

The statements above referred to are as follows:

Average cost of all electrical apparatus and supplies used by electric railways.

Year.	Per cent.	Year.	Per cent.
1912.....	104	1916.....	130
1913.....	101	1917.....	175
1914.....	100	1918.....	204
1915.....	104	1919.....	197

•Railway switchboards.

Year.	Per cent.	Year.	Per cent.
1912.....	100	1916.....	110
1913.....	100	1917.....	146
1914.....	100	1918.....	182
1915.....	91	1919.....	172

Transformers for rotary converters.

3 HR., 60-100 Kva., 11,000 volts.

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$1,700	121	1916.....	\$1,600	114
1913.....	1,600	114	1917.....	2,000	143
1914.....	1,400	100	1918.....	2,500	178
1915.....	1,550	110	1919.....	2,400	171

Railway rotary converters.

500 kw., 1,200 rev., 600 volts, 60 cycles.

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$2,325	96	1916.....	\$2,900	123
1913.....	2,375	101	1917.....	3,875	165
1914.....	2,350	100	1918.....	4,225	179
1915.....	2,400	102	1919.....	4,200	177

Railway locomotives.

(50-ton, 600 volts.)

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$14,000	101	1916.....	18,000	131
1913.....	13,000	95	1917.....	25,000	182
1914.....	13,700	100	1918.....	27,500	201
1915.....	16,000	117	1919.....	27,000	197

Railway car equipments.
(4-motor, G.E.-258, "K" control.)

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$1,475	102	1916.....	\$1,850	123
1913.....	1,475	102	1917.....	2,275	157
1914.....	1,450	100	1918.....	2,900	200
1915.....	1,400	97	1919.....	2,800	193

Railway line material, round top hanger.
(Price per 100.)

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$22.50	103	1916.....	\$23.40	108
1913.....	19.00	87	1917.....	40.77	183
1914.....	21.75	100	1918.....	57.75	266
1915.....	21.75	100	1919.....	75.75	350

Malleable iron Sherardized and molded compound. No copper.

Railway motor gears and pinions.
(Solid, rolled, grade "M".)

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$14.87	106	1916.....	\$18.90	135
1913.....	15.29	109	1917.....	25.11	179
1914.....	14.01	100	1918.....	34.60	247
1915.....	15.16	108	1919.....	31.82	227

Steam turbines—Condensing turbine with exciter.
(1,000 k.w., 3,600 rev., 2,300 volts, 3-phase.)

Year.	Price.	Per cent.	Year.	Price.	Per cent.
1912.....	\$13,000	102	1916.....	\$15,500	121
1913.....	13,000	102	1917.....	20,000	157
1914.....	12,750	100	1918.....	24,200	189
1915.....	13,000	102	1919.....	23,000	180

Mr. WARREN. I think that is all, unless something occurs to you, Mr. Barry, that the commission ought to be advised upon.

Mr. BARRY. I might say that the General Electric Co. are operating under a wage scale established by the War Labor Board in July or August of 1918, with the exception that some increases have been put into effect in that wage scale by reducing the number of hours in our shops from 50 hours per week to 48 hours per week and making a corresponding increase of 4 per cent in the wage scale.

The CHAIRMAN. Has there been a large turnover of labor?

Mr. BARRY. Our turnover during the war period was very large. We were employing at our Schenectady works during 1918 approximately 23,000 hands. A considerable portion of that proved to be of very little value and drifted back to farms or other occupations, and we are now operating a force of approximately 20,000. We are

operating more efficiently, the turnover is cut down very materially, and as far as we can see we will continue to operate at that rate.

Commissioner GADSDEN. Mr. Barry, from the standpoint of the General Electric Co., what is the credit of the electric railways?

Mr. BARRY. Well, I am sorry to say, Mr. Gadsden, that the credit of electric railways, by and large, is in very poor repute.

Commissioner GADSDEN. These electric railways would like to order a good many of these apparatuses from you if you would sell them to them, would they not?

Mr. BARRY. Yes, they would; particularly if they can get long accommodation.

Commissioner GADSDEN. They are trying to do it all the time, are they not?

Mr. BARRY. Yes.

Commissioner GADSDEN. Are you accommodating them?

Mr. BARRY. We are accommodating them to this extent: In the sale particularly of equipment for the one-man-operated safety car, we furnish equipments to railway companies and have made—we will sell the equipment for 25 per cent cash, the balance of 75 per cent in car-trust certificates running over a period of from 1 month to 36 months.

Commissioner MEEKER. What kind of certificate?

Mr. BARRY. Car-trust certificate. We can ordinarily turn a total of 50 per cent of the car-trust certificates over to certain banking connections who will take it as a banking proposition. That leaves 25 per cent of car-trust certificates on our hands on which we take more or less chance of being paid for. That is the way we are now furnishing a considerable amount of car equipment to railway companies.

Commissioner GADSDEN. Therefore your credit in the first instance is practically limited to equipment for one-man cars?

Mr. BARRY. Yes; in most cases. Of course, there are cases—from the Brooklyn Rapid Transit Co., which is in receivers' hands, we have recently received orders for \$600,000 or \$700,000 worth of business, and the cash is provided—it is assured.

Commissioner GADSDEN. You get receiver's certificates?

Mr. BARRY. No; we get cash in that case.

Commissioner GADSDEN. But I am talking about the general run of the electric-railway industry. What has become of their credit with you?

Mr. BARRY. I am sorry to say it is very poor.

Commissioner GADSDEN. Does the General Electric Co. feel that there is hope in this one-man car that they are willing to extend the credit on it?

Mr. BARRY. Well, we are willing to extend credit by the amount I have stated.

Commissioner GADSDEN. By practically taking a mortgage on the equipment?

Mr. BARRY. Yes.

Mr. WARREN. The reason you can do that is that they can give you a mortgage on the new equipment, but can not give you a mortgage on old equipment which is already mortgaged; is not that it? These car-trust equipment certificates are put on when the one-man cars are purchased, are they not?

Mr. BARRY. We get these certificates when the car is delivered.

Mr. WARREN. Exactly. In other words, it is delivered to the trolley company subject to the mortgage represented by certificates?

Mr. BARRY. Oh, yes; and of course, if the railway company should be in default in any of their payments we have a lien on the property and can take the car.

Mr. WARREN. That is all, unless the commission has some questions.

The CHAIRMAN. How long has that certificate plan been in operation?

Mr. BARRY. We instituted that about three or four months ago.

Mr. WARREN. As a means of helping them out?

Mr. BARRY. Yes.

Commissioner GADSDEN. From the standpoint of a salesman, that is just about the last ditch in credit; is it not?

Mr. BARRY. Why, yes, Mr. Gadsden. We are in the manufacturing business; we are not in the banking business. We, in common with most manufacturers, want to get our money when the stuff is delivered, but in order to help out the situation and in order to get a certain amount of business in our own shops for this class of material, we have been willing to extend this accommodation.

The CHAIRMAN. You feel that the hazard in the utility business is greater than it has been before?

Mr. BARRY. Oh, in the railway business; yes, sir.

The CHAIRMAN. Are you increasing the price of the articles you sell to these utilities on account of the increasing hazard?

Mr. BARRY. No; we do not take any unreasonable business hazard. If we do not feel reasonably sure that our money will be forthcoming from a railway property we do not want to sell the stuff, so we make no increase in profit on account of a railway company's wanting to buy the stuff.

Mr. WARREN. That is one of the reasons the sales have fallen off, I suppose, is it not—that you do not sell where you have to take an undue hazard?

Mr. BARRY. Yes; but I think the main reason is that the railway companies simply can not see their way clear to pay for apparatus on a cash basis or most any other basis.

Mr. WARREN. They can not see their way clear to pay for it and even if they tried to make you think they could, you can not see your way clear?

Mr. BARRY. No; unless we could obtain some data that would warrant our furnishing it.

Commissioner SWEET. Is this car trust a sort of mortgage on the property?

Mr. BARRY. Yes; it is a first lien on that particular equipment.

Commissioner SWEET. The title passes from the General Electric Co. to the purchaser, does it?

Mr. WARREN. The title usually passes to a trustee.

Mr. BARRY. The title is held by a trustee until paid for.

Mr. WARREN. It is really a conditional sale, as I understand it.

Commissioner SWEET. The legal effect would be similar to selling a piano, for instance, and retaining the title in the manufacturer until it is paid for.

Mr. BARRY. Yes.

Mr. WARREN. Except in these cases it is usually put in a trustee to pass to the carrier when it is all paid for.

Mr. BARRY. Yes.

The CHAIRMAN. Under this plan of certificates what part of the purchase price must be paid on delivery?

Mr. BARRY. Twenty-five per cent.

Mr. WARREN. And the rest is payable in installments?

Mr. BARRY. The rest is paid in installments running from 1 month to 36 months.

Commissioned SWEET. Is the custom of selling the same? Do you send salesmen out, or do you go and visit these companies as in the years past, or do the orders come in—

Mr. BARRY. Oh, no.

Commissioner SWEET. Or both ways?

Mr. BARRY. Orders do not come in. You have to go after orders.

Commissioner SWEET. Very well—

Mr. BARRY. Our methods of sale are these: We have eight large district offices in the country with a certain amount of material stored at these places, Chicago, Boston, New York—

Commissioner SWEET. For ready delivery?

Mr. BARRY. Philadelphia and San Francisco. There are eight of what we term district offices. Under those district offices—we will take San Francisco for example—we have a district office in San Francisco with a certain amount of stock there. We have a local office in Portland, Oreg., one in Seattle, one in Spokane, one in Los Angeles, one in Phoenix, Ariz., which report to that district office and are directed by the management of the district office. And all these district offices or local offices will have a corps of engineers and salesmen who are meeting the trade all the time and trying to get their business. The day of sitting down and waiting until orders are delivered to you by mail has gone.

Commissioner SWEET. Have you charge of these various district offices or their management?

Mr. BARRY. I have charge of it in so far as establishing selling prices and method of sales are concerned. Of course they have executive charge of their men—

Commissioner SWEET. The detail work?

Mr. BARRY. The detail work.

Commissioner SWEET. Have your duties brought you in contact with the street-railway companies and their managers in the past?

Mr. BARRY. Oh, yes; I frequently meet them.

Commissioner SWEET. Have you any distinct idea now as to what is the matter with the street-railway companies and what would be the best remedy for it?

Mr. BARRY. Well, my motion is this: Of course the street railways are reduced to the deplorable condition in which they are now, due to the tremendous increases they have had to pay for their materials, the tremendous increase they have had to pay for wages and taxes and—

Commissioner SWEET. Without a proportionate increase in income?

Mr. BARRY. Without the income. Now while I do not know very much about the financial or operating conditions of electric railways outside of unfortunately investing some of my personal money, in electric railways, my notion is that the electric-railway companies

must be given immediate relief by an increase in fare or many more of them are going to the wall. I think that if it were possible to give the electric railways an increase to 6 cents or 7 cents or whatever is considered reasonable, that that is the only method of saving many electric railway companies from bankruptcy.

Commissioner SWEET. Is it your judgment that there are many economies that can be effected in the conduct of the street-railway business?

Mr. BARRY. I do not think I am qualified to answer that. I do not know enough about the operation of railways to give an intelligent opinion on that.

(Witness excused.)

STATEMENT OF MR. M. B. LAMBERT.

Mr. WARREN. Will you state your full name?

Mr. LAMBERT. Miles B. Lambert.

Mr. WARREN. Your occupation?

Mr. LAMBERT. Assistant manager of the railway department, Westinghouse Electric Manufacturing Co.

Mr. WARREN. How long have you been in that business?

Mr. LAMBERT. Nineteen years, about.

Mr. WARREN. Does that bring you in touch with the sale and prices of equipment and apparatus for electric railways?

Mr. LAMBERT. That is part of my duty—to have charge of the prices of electric-railway equipment and locomotives.

Mr. WARREN. Will you, in your own way, make a statement from such data as you have prepared for the commission, touching the cost of electric apparatus and equipment handled by the Westinghouse Co.?

Mr. LAMBERT. Yes, sir. The Westinghouse Co. is engaged in the manufacture and sale of electric street railways and railway motors and car equipment to electric street railways—controlling apparatus, locomotives, rotary converters, transformers, switchboards, motor-generator sets, turbines, and other electrical apparatus.

Our prewar average gross sales of this apparatus and equipment ran from \$7,000,000 to \$15,000,000 a year; it varies that way, within the United States, our customers being generally throughout the United States. During the past two years it has ranged from 30 to 40 per cent of this normal.

Beginning with about the middle of the year 1915 there has been a steady and steadily accelerating increase in the prices of the various equipment and apparatus until at the present time, as compared with the middle of the year 1915, the percentages are about as follows:

Railway motors and car equipment, approximately 87 per cent increase.

Locomotives, approximately 87 per cent increase.

Rotary converters, approximately 75 per cent increase.

Transformers, approximately 70 per cent increase.

Switchboards, 100 per cent.

Motor-generator sets, 95 per cent.

Turbines, 100 per cent.

I have given some thought to the future conditions and prices, but can see nothing at present which would indicate to me a substantial reduction in prices other than the slight reduction that has taken place during the past two months.

These increases in our prices as manufacturers and producers of electrical equipment have been caused by our increased cost of raw material, manufacturing machinery, and labor. In comparing the present time with the latter part of the year 1914 and the first half of 1915, I find that machine tools which we must purchase to manufacture our apparatus and equipment show an increase of approximately 100 per cent. The raw materials have shown great increases, as shown by the following tabulation.

It might be well to inject at this point the fact that we, as manufacturers, and I think also the General Electric Co. and other manufacturers supplying electric railways, depend to a very large extent on other manufacturers to supply raw material, sometimes partially fabricated and sometimes just in the raw state; and the following will give you an idea of the increases we have had to pay for the materials which we fabricate. All raw materials have shown great increases, as shown by the following tabulation: Pig iron, approximately 106 per cent; steel plates, 141 per cent; copper, 58 per cent. That corrected as of to-day would go up a bit, because copper has gone up from the time I had this tabulation made. Steel castings, 220 per cent.

I might digress here for a moment for the benefit of the commissioner who is asking about the discrepancy in the high cost of cars. The reason for the high cost of cars is because of the steel castings which both companies get from the foundries and the Carnegie Steel Co.; so the price of materials entering into cars has gone up 220 per cent.

Spelter, 30 per cent; coke, 35 per cent; mica, 100 per cent; asbestos material, which we use a great deal of, 560 per cent; other insulating materials, 125 per cent; magnetic sheet steel, 280 per cent.

The development of electric railways has been very rapid, and in general the equipment and apparatus are not always used until worn out, being laid aside very frequently by reason of advances in the art. In my opinion, it is proper that the reserve for depreciation and obsolescence of electric railways should not be wholly based on the physical life of the equipment. I thought it would be interesting to the commission to know that point. Actual experience has shown that it is necessary to make special provision for what may be called the shorter economic life of equipment and other apparatus where the physical life has not ended but where the life of the investment in the old equipment has not as yet been economically reached. I could not state any definite term of this economic life because it varies very much, depending very largely upon the improvements which we and other manufacturers develop. Nevertheless this has an actual bearing and serious importance and, in my judgment, would largely affect all electric railways in setting up their depreciation reserve in order to meet these economic conditions.

That is a very brief statement, but if there are any questions you would like to ask I will be very glad to answer them.

Mr. WARREN. One question I would like to ask, if you are willing to answer it, whether in your judgment the prices for labor are likely to diminish within the next year or within the next few years.

Mr. LAMBERT. In my judgment the price of labor during the next year and perhaps the next two years is going to increase unless, as a former witness said, the high cost of living comes down very rapidly.

It might be well to mention there, Mr. Warren, that when you stop to consider it, and segregating the price of materials and labor as two distinct and separate factors, labor after all is nearly the whole thing when you take everything from its source. Take the ore, for instance: you might say that the raw materials cost nothing, it is the cost of labor producing them. They are in the earth. Therefore, the content of labor enters into the whole thing, and therefore prices are not going down; in fact I think they are going to increase moderately.

Mr. WARREN. That is all I want to ask.

The CHAIRMAN. Do you sell a large quantity of materials to these utilities?

Mr. LAMBERT. Well, in proportion, if you call it large, to that which I mentioned here—that is, seven to fifteen million dollars.

The CHAIRMAN. Have you many orders on hand at this time?

Mr. LAMBERT. No; probably 30 per cent of normal.

The CHAIRMAN. Are you expecting an increase in the volume of your business with electric railways within the next year?

Mr. LAMBERT. Our hope is that some relief will be given the railroads to restore their normal buying power.

The CHAIRMAN. Does that statement of yours apply exclusively to the electric lines?

Mr. LAMBERT. No; the electric railways are in worse straits, I think, than any other industry in the country or in the world.

(Witness excused.)

STATEMENT OF MR. WILLIAM H. HEULINGS, JR.

Mr. WARREN. Your name is?

Mr. HEULINGS. William H. Heulings, jr.

Mr. WARREN. You reside where?

Mr. HEULINGS. Philadelphia.

Mr. WARREN. You are vice president——

Mr. HEULINGS. Vice president of the J. G. Brill Co.

Mr. WARREN. That is one of the largest electric car-building concerns in the country, is it not?

Mr. HEULINGS. Yes; it is.

Mr. WARREN. How long have you been connected with that company?

Mr. HEULINGS. About 35 years.

Mr. WARREN. You are now in the sales department?

Mr. HEULINGS. Yes, sir.

Mr. WARREN. How long have you been in that department?

Mr. HEULINGS. I have had complete charge of it for 20 years and have been associated with it for 25 years.

Mr. WARREN. What plants does that company operate?

Mr. HEULINGS. At the present time we own four plants: The J. G. Brill Co., Philadelphia, Pa.; The G. C. Kuhlman Car Co., Cleveland,

Ohio; The American Car Co., St. Louis, Mo.; and The Wason Manufacturing Co., Springfield, Ohio.

Mr. WARREN. If you will go on in your own way and state to the commission the situation regarding street cars, especially the electric-railway industry, I shall be much obliged.

Mr. HEULINGS. I have prepared a little statement, gentlemen. Shall I read it?

The CHAIRMAN. Yes.

Mr. HEULINGS. I have been given to understand that the character of information you want from me is data that will enable you to form an opinion as to why the street-railway properties through this country have been called upon to make the heavy investments that they have made and are making in street-railway rolling stock. There are several important elements that contribute most largely to this result, and they are as follows:

First. Change in the character of car. There have been, within the past 10 years, very decided changes made in the constructional details of the electric-motor car for street-railway service, inasmuch as metal has to a considerable extent been used in substitution of wood. This condition has produced a situation in our various plants making it necessary for us to lay aside a great deal of woodworking machinery and to increase our capital account by the introduction of metal-working machinery in its stead, and the further introduction of specially designed and especially built machinery for working special metal for special service conditions.

This change in the character of cars from wood construction to metal construction has, in itself, made a material increase in the cost of the finished vehicle. It must not be overlooked that in this change from wood to metal cars the element of safety to the traveling public was the foremost consideration.

Second. When the various horse-drawn street-railway properties made their conversion to cable and electrically propelled equipments the tendency seemed to be to adhere to about the then approximate length of the horse car most popular at that time. This was doubtless a mistake and the street-railway operators were quick to increase the carrying capacity of the vehicle to hereby influence and decrease the cost to carry a unit passenger. This led to the replacement of the smaller cars with larger, heavier, and consequently more expensive rolling stock.

Third. The factor of obsolescence is a very important one and many changes in design all tending toward economy of operation have been produced in the past 15 years. It is also perfectly reasonable to state that cities which have been served with a type of car not of the very latest design have through their public organizations almost invariably made demands for the more up-to-date and additional rolling stock.

Possibly the most important fundamental change was the introduction of the prepayment system. This item, in itself, made necessary the expenditure on the part of the railway company from six to eight hundred dollars on each of their then present cars to convert them into prepayment cars, the only alternative being to scrap them and, as a matter of fact, the scrap heap was used actively, for the average railway company purchased up-to-date and, generally speaking, metal prepayment cars.

These elements—character, design, and obsolescence—have always contributed toward the introduction of new and better equipment, so much so that it is the exception for a car to ever render service for its complete lifetime. I believe that there are few if any instances wherein an electric-motor car has actually remained in service on the line that originally purchased it for a period of anything like its lifetime.

The above elements are fundamental factors that have made additional outlay for rolling stock on the part of the railway companies positively imperative, but the excessive costs of every increase in labor and material have made a marked increase in the selling price of cars within the past five years. We have considered, for the sake of making a starting point, that the prices of material and labor that prevailed in 1914 and 1915 were about normal. It is quite true that the labor rate has been, for a great many years, constantly increasing. The yearly average of increase has been small except under special conditions, but nevertheless it has shown an average of increase.

In the early part of 1915 both material and labor advanced in unheard of proportions, and while it is a fact that from the early part of 1918 to January, 1919, there has been a reduction in the cost of material, material has remained stationary as far as our purchases were concerned, from January 1, 1919, to the present day. It is my opinion that material will increase from now on, rather than decrease. In contradistinction to the drop in material, the cost of labor has shown a constant increase.

I have charted the direct material and direct labor in the proper proportions in which they appear in the car of to-day and I present this chart as showing the actual conditions. Note, if you will, the material increase from January, 1915, to January, 1916, was about 36 per cent. From January, 1915, to January, 1917, it was 119 per cent. From January, 1915, to January, 1918, it was 126 per cent. From January, 1918, to January, 1919, however, the decrease was 18 per cent.

The labor curve, however, shows the following course: From January, 1915, to 1916, 12 per cent increase; from January, 1915, to January, 1917, 40 per cent; from January, 1915, to January, 1918, 117 per cent; from January, 1915, to January, 1919; 119 per cent; and the course since January 1 of this year to the present day has been upward.

One of my reasons for contending that material will advance is that I know our labor has advanced and is continuing to advance, and as a matter of fact, as labor constitutes a very great proportion of that which we buy as "material," it is but to be expected that the material will follow the course of labor, especially when the absorption of stocks is completed.

I want to make perfectly clear to your commission that this chart shows the actual different grades of material and the actual different grades of labor in the correct proportion and quantities as appears in the average standard double-truck car of to-day.

In the foregoing information I have not elaborated at all on one very important item of obsolescence. This item is the Birney safety car. The adoption of this car has been phenomenal. We have built about 1,000 of them for different parts of the country and the principles of operation which they involve have shown pronounced econ-

omies. The introduction of the safety car, however, means a further outlay for rolling stock on the part of the railway companies. It is, moreover, economical and warrants adoption on exactly the same ground that the introduction of the prepayment idea was economical and warranted adoption.

My testimony, I understand, is to be confined to rising costs of cars, and as a consequence I will not elaborate on the Birney safety car, especially as I understand some direct testimony is to be given by another witness.

That is all, Mr. Warren.

Mr. WARREN. I am very much obliged to you.

The CHAIRMAN. When you speak of the labor cost increasing 120 per cent from 1915 to 1919, do you speak of the labor that enters into the car that you sell to these utilities?

Mr. HEULINGS. No, I mean the price we pay to the man to produce the car that we sell to the utilities—that is, the actual direct labor as differentiating between indirect labor.

The CHAIRMAN. But the direct labor which goes into that car has increased 120 per cent from 1915 to 1919?

Mr. HEULINGS. Yes, sir.

The CHAIRMAN. And what per cent of the cost of the car is represented by labor?

Mr. HEULINGS. Direct labor about 33½ per cent. The material at the present time averages about \$2 for every \$1 of labor. It used to be practically even.

Commissioner SWEET. You say now the material cost of a car is about double what the labor cost is?

Mr. HEULINGS. Yes—well, that is hardly fair. I say that for every dollar in labor that you invest in a car you will invest about \$2 for material, making \$3 as the total. In other words, a car that costs \$3,000 will be represented by \$2,000 for material and \$1,000 for direct labor.

Commissioner SWEET. Well, that would be twice as much in material as in labor?

Mr. HEULINGS. Yes.

The CHAIRMAN. But you said before it used to be fifty-fifty?

Mr. HEULINGS. Yes, it used to be even and now it is two to one.

The CHAIRMAN. So material has advanced twice as fast as labor.

Mr. HEULINGS. Material has advanced; yes.

Commissioner GADSDEN. To state it the other way, let us take a standard car—one of your standard cars—and give us the price before the war and the price now, and let us get at it that way.

Mr. HEULINGS. It is an extremely difficult thing to give a price on a standard car because there is no such article.

Commissioner GADSDEN. Well, any car you choose to take, so you use the same car in each case. Take any double-truck car that you make and give us the price for 1914 and give us the price for 1918.

Mr. HEULINGS. Of the same car?

Commissioner GADSDEN. Of the same car.

Mr. HEULINGS. Would you let me send that to you accurately. I would hesitate to guess at it.

Commissioner GADSDEN. Well, I thought you could approximate it.

Mr. HEULINGS. I can approximate it, but I would like to give it to you accurately.

Commissioner GADSDEN. Just approximate it, in order that the commission may understand what you mean about the material being double the labor.

Mr. HEULINGS. Well——

Commissioner GADSDEN. I can tell you approximately myself.

Mr. HEULINGS. Yes. Well, about \$3,000 to \$6,500.

Mr. WARREN. That is, a \$3,000 car in 1914——

Mr. HEULINGS. Would be \$6,500 to \$7,000 now.

The CHAIRMAN. Then in 1915 that \$3,000 car would represent \$1,500 in labor cost and \$1,500 in material?

Mr. HEULINGS. Yes.

The CHAIRMAN. To-day that \$6,500 car would represent two thousand a hundred and odd dollars in labor and the rest in material?

Mr. HEULINGS. Yes.

Commissioner SWEET. Has not the advance in wages and labor been more than that?

Mr. HEULINGS. The advance in labor has been about 119 per cent—nearly double.

Commissioner SWEET. If \$1,500 of labor was put in in 1915, why would it not be more than \$3,000 now, if it has more than doubled?

Mr. HEULINGS. As a matter of fact it would be, because labor has increased over 100 per cent.

Commissioner SWEET. Well——

Mr. HEULINGS. Then my guess is off. That is the story; that is the exact answer.

Commissioner SWEET. I accept your apology.

Mr. WARREN. Is your guess off, Mr. Heulings?

Mr. HEULINGS. I think it must be, if they do not check.

Mr. WARREN. As I look at this chart, apparently the cost of material accelerated very much more rapidly than the cost of labor.

Mr. HEULINGS. Oh, it did.

Mr. WARREN. In other words, is it not generally a fact that labor lags behind in this readjustment of prices to a depreciated currency or increase in cost or whatever one chooses to call it?

Mr. HEULINGS. It has, as far as our work is concerned, lagged behind materially.

Mr. WARREN. Your material cost in 1916 was substantially higher than your labor?

Mr. HEULINGS. Yes.

Mr. WARREN. But in June, 1917, it had jumped up almost to 120 per cent.

Mr. HEULINGS. Yes, as against 40 per cent.

Mr. WARREN. As against 40 per cent for labor?

Mr. HEULINGS. Yes.

Mr. WARREN. It was not until January 1, 1918, that they began to get nearer together, and it was not until the middle of 1918 that they crossed?

Mr. HEULINGS. That is correct.

The CHAIRMAN. Are you selling much to the utility companies at this time?

Mr. HEULINGS. Not a great deal; no.

The CHAIRMAN. Have you during the past six months?

Mr. HEULINGS. No; our business I should say has been considerably less than the average.

The CHAIRMAN. How much less?

Mr. HEULINGS. Well, in dollars and cents it ran about the same, but that represents about 100 per cent increase over normal times, so it must be about half of the normal.

The CHAIRMAN. Is the industry, speaking of it as a whole, having any difficulty in financing its purchasers with you?

Mr. HEULINGS. Oh, yes.

The CHAIRMAN. How do they do it?

Mr. HEULINGS. Well, they do it as Mr. Barry just referred to. We are jointly interested with him in the car-trust matter. That is how we are being able to finance quite a few of the purchasers of these safety cars and to help the railroads make economies which they will provide them with.

Commissioner GADSDEN. Are you requiring certificates on other types of cars than the safety cars?

Mr. HEULINGS. No. We can not handle them. You see they are not a standard article. Barring the safety cars we have never duplicated an order. Except in one instance have we ever duplicated an order for exactly the same style as the other order. We built 1,500 cars for Philadelphia in a period of four years and they are so nearly the same you can not tell the difference, but each particular set required a new set of drawings and specifications.

Commissioner GADSDEN. Does not that suggest one of the economies that the railway people could work out, in the standardization of equipment?

Mr. HEULINGS. Unquestionably they could, and they could do us great good and economize.

Commissioner GADSDEN. If we could come out of this hearing by standardizing the railway equipment would not that help solve this problem?

Mr. HEULINGS. You would take a great step in the right direction.

Commissioner SWEET. How much difference do you think it would make if the cars were standardized instead of having different specifications for each car?

Mr. HEULINGS. I might answer that by the experience of the safety car. The safety car is practically standard. The total amount of advance in the safety car was about 50 per cent, and that was due to the fact it was standardized and we could run them through in 100 and 200 car lots and sell them to the individual as he wanted them and practically take them off the shelf. Now other cars have advanced over 100 per cent. That is the best answer.

The CHAIRMAN. Yet the Railroad Administration let an order for 100,000 cars that used to sell for somewhere around \$900 and their order was about \$3,000. There is another sample of standardization.

Mr. HEULINGS. Yes. It possibly would have gone a great deal higher—

Mr. WARREN. Is it not a fact—or perhaps you do not know about them, but some of us to our sorrow do—that many of the differentiations in rolling stock on street railways are caused by the requirements of different local authorities. Do you know as to that?

Mr. HEULINGS. Yes, that is quite a factor. The individual ideas of the mechanical departments of the various railroads make for

standards that are peculiar to their property; and that is the reason we have so many.

Mr. WARREN. But is not that largely the result—perhaps you do not know that, but I will ask you—is not that the result of the requirements of the local municipal authorities themselves?

Mr. HEULINGS. Well, I do not think I would want to say that. I have never had an experience which would warrant an answer to that.

Mr. WARREN. I do not want to justify, but I think we can bring some witnesses who will show that is so. In New England the local authorities have very set ideas as to the kind of rail, for instance, to be used. The worst of it is that the successive incumbents of the same office have very different ideas of the kind of rail to be used; and many of the specifications which make our rails cost much more money are due to the absolute requirements of road commissioners, superintendents of streets, and so forth.

The CHAIRMAN. Do you believe that in a country with such diversified climate and territories, part being prairie and other parts rolling and others mountainous, and where in the North you have your cold winters and heavy snows, and in the South your large precipitation, that there is such a thing as a standard car that can be used all over this country?

Mr. HEULINGS. Well, Mr. Commissioner, I will also again refer to the safety car. The safety car is used in the southern part of Texas, it is used in Jacksonville and Tampa, and it is used in Bangor, Me., and in Canada, and it is used in Seattle, in Portland, and Lower California.

The CHAIRMAN. Well, your safety car is a one-man car.

Mr. HEULINGS. Yes; a one-man car.

The CHAIRMAN. Light equipment.

Mr. HEULINGS. Light equipment, light weight; and it is used in all those various climatic conditions.

The CHAIRMAN. Could the same principle be applied to a heavier car?

Mr. HEULINGS. I do not see why it could not. The safety car applies to certain conditions where your travel does not get to practically a moving platform. Then you have to have larger equipment and greater carrying capacity, but I do not see why to a very considerable degree the same standard should not prevail.

The CHAIRMAN. Has the diversity in the car been due largely to the demands of the municipalities or has it been due to the competition between car manufacturers in the sale of a superior car?

Mr. HEULINGS. While the car manufacturers I think have all tried to outdo each other in regard to the superiority of their equipment, I know we have always tried to hold the better position. I really think the diversity of car equipment is more due to the opinion of the local men than anything else—the local operators.

Commissioner SWEET. The local what?

Mr. HEULINGS. The local operating men.

The CHAIRMAN. What effort has been made in the industry as well as in the manufacturing end to get together upon some standard form of car?

Mr. HEULINGS. I do not believe that any considerable effort has been made along that direction, where we tried to bring all the railway operatives together and to present a standard form of vehicle for them.

The CHAIRMAN. Do you think that the saving in dollars to the public is sufficient to warrant an effort being made by interested parties to agree upon a standard form of equipment?

Mr. HEULINGS. There would be a big saving in the manufacture, without a question of doubt.

Mr. WARREN. How much saving? I want to get at the percentage of saving you thought might result.

Mr. HEULINGS. There would be a saving of from \$300 to \$400 on every double-track car.

The CHAIRMAN. But would it not be open to this objection, if it is one: The moment the country agrees upon a standard form of car, you have thus at that very moment prevented any further improvement in the art?

Mr. HEULINGS. You would. You would probably stop initiative and you would halt inventive genius, I believe.

Commissioner GADSDEN. You would also stop obsolescence, too.

Mr. HEULINGS. Yes.

Commissioner GADSDEN. Which would be desirable.

The CHAIRMAN. Have you reached the point of development in the industry where it can be safely said that we can agree upon a standard car that is going to meet the demands of the country?

Mr. HEULINGS. No, I do not think so. I do not believe you could get an agreement on that basis.

Now, to illustrate that, there are many very successful operators who will insist upon the use of center-entrance cars. We have had them in Washington; we have had them in Boston, and we have them in New York; we have them in Brooklyn; and yet there are other roads that would not have a center-entrance car under any circumstances.

The CHAIRMAN. To agree upon a standard form of car would mean the practical elimination of all the equipment which you have got to-day, or a very great part of it?

Mr. HEULINGS. It would.

The CHAIRMAN. And in the present state of the industry is there any hope of being able to abandon that equipment and put in a new form of car?

Mr. HEULINGS. I doubt it; only so far as the introduction of the new Birney safety car is concerned. There, I think, it can be done.

The CHAIRMAN. Would there be any hope of agreeing upon a plan for a standard car that could be used for new equipment as it is being purchased?

Mr. HEULINGS. Well, the United States Housing Corporation took up that identical thing here about a year and a half or two years ago, maybe, and they tried to come to some conclusion with regard to a standard car or something that could be called a standard car, but I doubt if you would consider that very much headway was made with it.

Now, there is another very popular type of car that is used in Cleveland, known as the Peter Witt type of car—a front entrance and center exit—that probably presents some advantages. It han-

dles passengers probably as quickly, or more quickly, than any other type of vehicle.

The CHAIRMAN. Do I understand you have another witness you want to put on to-night?

Mr. WARREN. If you please, Mr. Chairman.

(Witness excused.)

STATEMENT OF MR. HENRY L. DOHERTY.

Mr. WARREN. Your full name?

Mr. DOHERTY. Henry L. Doherty.

Mr. WARREN. You are interested in a great many public utilities?

Mr. DOHERTY. Yes, sir.

Mr. WARREN. Including street railways?

Mr. DOHERTY. Including street railways.

Mr. WARREN. What are some of your street railways, Mr. Doherty?

Mr. DOHERTY. We have a street-railway company at Toledo, Ohio, a number of interurbans there; we have a street-railway property running over the Manhattan Bridge and down to Jamaica, Long Island, from New York City; we have some 8 or 10 small street-railway companies.

Mr. WARREN. He being interested in all these railways—I think, as the time is limited, I would like to turn Mr. Doherty over to the commission to answer questions that may interest the commission, instead of my questioning him directly.

Mr. Doherty represents the Cities Service Co., I think, do you not, Mr. Doherty?

Mr. DOHERTY. I am president of the Cities Service Co., and then we have other interests besides that—the firm of Henry L. Doherty & Co.

Mr. WARREN. So your experience has been very great. I might ask one question following the line of the other witness, and that is, have you had experience in increasing your rates of fare on any of your companies?

Mr. DOHERTY. Yes, sir; I have.

Mr. WARREN. Has the result justified what some of the other witnesses said here to-day, that they got a substantial increase in revenue?

Mr. DOHERTY. I have not heard any of the other testimony that has been given before at this hearing, and I have not read about it. A raise of fare eventually results always in a raise in revenue; but if I were trying to state the effect of it, I would prefer to make a fundamental analysis of it rather than to take the specific figures from some certain town and assume that that would apply elsewhere. Now you can divide your riding into two classes—necessity riding and nonnecessity riding. If you are in a city where practically all your riding is necessity riding, where the rider has to ride, of course a raise in fares will not bring any greatly diminished amount of riding. But if you are in a city where the distances are short, it will bring a diminished amount of riding, at least for the time being, and I think that depends largely on the temper of the people toward the road, whether they believe the rate is justified or not. What I expect to see is this—that a raise in rates will always cause momentarily a falling off in the number of passengers but eventually

I believe, except in the smaller cities, the same number of people will ride.

Mr. WARREN. And even immediately on the change there is some increase in revenue, is there not, unless it is an exceptional case?

Mr. DOHERTY. Unless it is an exceptional case there is immediately an increase in revenue.

Mr. WARREN. So that it is a real means of relief to the companies needing additional revenue?

Mr. DOHERTY. Yes, sir.

Mr. WARREN. Are there any questions the commission would like to ask?

The CHAIRMAN. I would like to have Mr. Doherty go ahead and talk awhile. He has had a wide experience. Tell us what the trouble with the street-car industry is and what is the remedy, if there is one.

Mr. DOHERTY. Mr. Chairman, I did not come down for this hearing, although I am intensely interested in it, and I am very glad that the street-railway men are having an opportunity to tell their story.

In the early days of street railroading—and in a great deal of this I may be simply repeating what other witnesses have said—but in the early days of the street railway, most of the roads were not to exceed 2 miles long and the platform-labor cost not to exceed 15 cents an hour. I think in the city I was brought up in the maximum wage for a long time was \$1.80 and the hours were about 12. Now we have seen wages gradually increase from 15 cents to a maximum of 60 cents and we have seen the distances increase from, say, 2 miles to, I believe in some cases, 15 or 20 miles, and the average distance of riding constantly going up on account of the size of the city. And it seems to me perfectly obvious that we can no longer stick to the original amount that was fixed for a street-railway fare. That was fixed at that time largely as a matter of convenience, on account of the nature of our coins.

Now, in addition to that, we went through the bicycle craze and we saw the effect that had on the street-railway companies, and now we have the automobile with us and apparently we have got that with us permanently.

I do not know the answer to these problems. I would be perfectly willing to try to sit down and work them out with any group of men. There must be some answer, and if things are allowed to go the way they are I am sure that in the end, while the security holders and street-railway men will suffer severely, it will be the public that will suffer the most and it will be the wage-earning class of the public that will be punished most, because they will have no other means of conveyance.

The public are always imbued with the idea in public-service work that the thing they are the most interested in is low cost of service. It seems to me they are interested first in complete service from a geographic standpoint, second in good service, and lastly in low rates.

The only solution that I see to the difficulty is to raise the rates of fare to a point where the street-railway companies can live; and until some scheme of premiumizing good management and economical operation can be devised—something like what is known as the London sliding scale—I do not see that there is any other way to work except on a cost-plus basis. I am a believer that, if we had the methods developed for doing it, we ought to go to a metered system

of riding, paid for distance. But I think that the paramount thing is immediately, before the credit of street-railway companies is entirely wrecked in the minds of the investing public, to get some sort of relief for the street railways, and that, as I see it, can only be done by an increase in the rates of fare.

The CHAIRMAN. Could the problem be solved by getting away from fixed franchise rates and leaving it to the utility commissions to determine the reasonableness of a rate?

Mr. DOHERTY. Yes, if the utility commissions would act promptly it would; and I think utility commissions are in better shape to determine what a rate should be than the local authorities.

I have had one case where we have been trying to settle the street-railway difficulty for a number of years and we have had continuous negotiations, I would say, for nearly five years with the city authorities and have never reached a settlement, and largely I think because the city authorities felt that they had to comply with what they believed to be the wishes of the people; and yet in many ways those conditions would have been something under which the company could not have lived.

In that case—I refer to Toledo—we took hold of the Toledo situation when it had been a matter of controversy for a long time, and the people there were determined to have a 3-cent fare, and a great number, perhaps a majority of the population, felt that if they voted for a 3-cent fare that that should entitle them to a 3-cent fare—simply because they had voted for a 3-cent fare. They had that imbedded in their minds, and when we would try to tell them we could not furnish street-railway service at 3 cents, they would say, “We voted to have you do it.”

Now, we have never been able to make the local authorities believe that the people of the city understood that we must have a higher rate of fare; and yet I think the people as a whole know that we must have a higher rate of fare, and I think they would be willing to pay it.

I think in most every case if the matter was laid properly before the people, without any confusion from the other side, and was honestly presented from both sides, the people would be willing to pay the necessary amount to provide adequate and proper street-railway service.

The CHAIRMAN. Well, of course, it is the law that a utility is entitled to a fair return on property which it uses in the public service. Now, if we can reach the time when the street-railway properties are given an honest valuation by State regulating authorities or some others who have the power to say what that value is, and then a close examination is made of the operating sheet of the company, can you see that there would be any difficulty in having State commissions or other tribunals promptly determine the question of a rate increase?

Mr. DOHERTY. No, sir.

The CHAIRMAN. Has not the great trouble heretofore been that there is always a dispute as to the value of your property, as to the amount of the actual investment in the property, and a feeling that your property has been greatly overcapitalized, and because of that the investors are getting really more than they are entitled to?

Mr. DOHERTY. Well, there has been so much of a play made on the matter of watered stocks and capitalization in excess of cost that the public can not dissociate that from the idea of a valuation made strictly on the property.

The CHAIRMAN. Yes. Now, then, when you get a valuation, is not that in and of itself going to remove most of the difficulties which you have in dealing with the public?

Mr. DOHERTY. If you can make the public understand that the amount of bonds and stocks issued on these properties is not going to be considered at all in making the valuation of the property—the newspapers in the different cities generally play up the matter of watered stock, whether there has been any watered stock or not; but if you can make it plain that the property is going to be valued as a property and without regard to its capitalization—I think the public would be perfectly willing to pay a rate of fare that would in turn yield a fair rate of return of the actual value of the property. Now in the matter of the value of the property, I do not see that there should be such a great difference of opinion as there has been on some of the valuations.

The CHAIRMAN. Well, that is a matter of detail and does not go into the principle we are trying to discuss.

Mr. DOHERTY. No; I just want to make a point—that it is very easy to determine the value of the property.

The CHAIRMAN. I was back in St. Paul last winter, and the Twin Cities lines were trying to get some sort of legislation. The mayors of the cities and some others immediately took advantage of a public feeling that there were about \$10,000,000 or more of watered stock in the property, and that element alone I think had more to do with defeating really wise legislation than any other single factor. Now, if those properties could have been properly valued by the State, subject to the right of appeal to the courts by either party, that element of criticism would have been removed.

Mr. DOHERTY. And I agree with you—if you can just get out of the public mind that that watered stock has anything to do with the valuation that is going to be made.

The CHAIRMAN. Exactly. Now, if the utilities and the public authorities can reach the point where these properties can be properly valued and you get away from a fixed franchise rate, have you not, as a matter of fact, got about all that a public-service corporation should have?

Mr. DOHERTY. Well, that is all I think that any of the public-service corporations should ask for, but they are asking if possible that that really be granted to them very quickly.

The CHAIRMAN. Oh, I am asking questions now with reference to a permanent policy and not immediate relief.

Mr. DOHERTY. I agree with that policy until we can find some better one. If there is a better one, all right; but that is the only one I see now.

The CHAIRMAN. If you can reach this proper value and have the State fix the rates, is there any reason why you should adopt the cost-of-service plan? I am asking these questions, and I am entirely open-minded on the proposition.

Mr. DOHERTY. Is it not practically the same thing? Because—

The CHAIRMAN. No; because one operates automatically with the rise and fall of the cost of operation and the other addresses itself to the judgment of the tribunal.

Mr. DOHERTY. Well, I should think it would be preferable to have the State commission determine the valuation—I did not quite catch the distinction that you make between your plan and the cost-of-service plan. I should think—

The CHAIRMAN. I am not announcing a plan but I am stating the plans.

Mr. DOHERTY. No. Well, your question, I will put it. But it seems to me the matter of being able to adjust yourself to new conditions without a new hearing is very valuable. Now, here is what happened, Mr. Elmquist, in the matter of public-service commissions. If the day ever comes when the farmer must go to the public-service commission or some agricultural commission and get the consent of that body to plant one field in wheat and another field in corn he will probably say, "Oh, well, it is so much trouble I will just let it go; I will not plant anything," simply on account of the delay. We have not been hurt so much by public-utility commissions, even where they have shown their teeth in many cases, because we have been able to tell our story to them and get it before them. But we have often been intensely hurt by delay, and the street-railway companies now are in a condition where they need assistance, and they need assistance at once, and if they do not get it at once their credit is going to be permanently crippled. The whole industry's credit is going to be so crippled that I doubt if it can be reestablished. I do not know that I make myself entirely clear. But if some man would go around to a farmer and say, "I am starving," and the farmer would say, "Old fellow, I am going to have the finest crop of wheat next year you ever saw. You come around when that crop is in and I will give you something to eat." That would not do the starving man much good, because he would be dead when the crop came in. Now, the street railways are just in a crucial condition. In fact, their credit is already strained beyond the elastic limit, and when we talk about stopping and making an accurate valuation of these properties a very long period of time can be consumed. It is surprising how much time it does require sometimes in connection with a State commission making an accurate valuation.

The CHAIRMAN. I hope you did not get the idea that I meant there had to be a valuation of these properties in order to determine the immediate pressing question. You know—

Mr. DOHERTY. Well, I was afraid the conclusion would be drawn by many of our State commissions that no relief whatever should be granted until this very detailed determination of values could be made.

The CHAIRMAN. Well, of course you know that State commissions during the war times have uniformly granted rate increases without going through the form of valuing the properties. They have simply overlooked that during the time of the war and have treated them as emergency propositions.

Mr. DOHERTY. They have in many cases, but in other cases they have not granted the increase; and my theory would be whatever is done, to make an approximate valuation and make some rate ad-

justment on that basis and then later make the detailed and more accurate valuation.

The CHAIRMAN. Are we to understand that in your opinion this commission has just one duty to perform, and that is to evolve some plan by which immediate relief can be given to the utility?

Mr. DOHERTY. Will you read that to me?

(The question was then read as above recorded.)

Mr. DOHERTY. Now, I did not assume that, but I do assume that if anything is going to be done and eventually serve the public properly with street-railway service, there must be immediate relief given. In other words, that a permanent plan will be greatly handicapped unless immediate relief is given.

The CHAIRMAN. Well, might we assume then that there are two functions to be performed by this commission: One to evolve a plan for temporary relief and another to outline a plan for permanent relief?

Mr. DOHERTY. That would be very wise, I think.

The CHAIRMAN. Now, addressing yourself to the first proposition—of immediate relief—how can we serve the utilities in that respect?

Mr. DOHERTY. I would say by recommending that revaluations of the properties be made by approximate methods and rates predicated on the valuation by the approximate methods until such time as credit valuations of these properties can be made.

The CHAIRMAN. Do you mean that, where a utility is actually operating in the red and paying nothing at all to its stockholders, there should be a valuation of the property before relief is given, even upon an approximate basis?

Mr. DOHERTY. Now, I do not think that is necessary. I will amend my answer by saying that in many cases there is no need of even making an approximate valuation. We know that a raise has to be made. But I should think an approximation should be made. I should think rates could be based better, even in a situation like that, if an approximation was made. Say, for instance, you just took roughly and said for a railroad, we will allow a valuation—I am just talking now in round figures—we will allow a valuation of \$100,000 a mile of track as an approximate valuation, and then we will see what the situation would have to be on that valuation to yield a proper return, and then these rates will prevail until an accurate valuation can be made.

The CHAIRMAN. Irrespective of value, the utility has got to have enough money out of its rates to pay its operating costs.

Mr. DOHERTY. Oh, yes, absolutely. But I would not like to see just enough given to them to pay operating expenses, because that does not save their credit and that does not save the credit of the business.

The CHAIRMAN. No doubt about that, but I was trying to develop the point that there are cases where valuation is not necessary.

Mr. DOHERTY. Certainly, in most cases valuation is not necessary to know that there has to be an increase in rates.

The CHAIRMAN. Now then, to whom should our recommendation be made, and how, answering with respect to immediate relief?

Mr. DOHERTY. Well, I do not know, of course; I am not a very quick thinker, but it seems to me we have got to make that apparent to whoever the rate-making body is. In many States both the city

and the commission have to act, and having two bodies which must act makes it more than doubly difficult.

I think that the one important thing to do here is to make the public understand it, because I know from my dealings with public officials that very often they know that a thing ought to be done, but they are not going to do it unless they believe the public thinks it ought to be done.

The CHAIRMAN. Do you believe the function of this commission, then, is largely educational?

Mr. DOHERTY. Yes, largely educational. I would say that the work of this commission would not be entirely covered if it simply succeeded in impressing upon the rate-making body that this or that were so. Unless it can go further and be of enough public interest to make them courageous enough to act, not much will be accomplished from it.

The CHAIRMAN. Now to step from the temporary plan to a permanent plan; how can this commission serve the utilities and the public with respect to a permanent plan?

Mr. DOHERTY. Well, it can point out the possibilities of street-railway economies, and it can point out the possibilities of the relief of persons that street-railway companies should not bear. There has been—I do not know how many cities there are where there is an occupation tax laid on street railways. I do know that many public utilities are subjected to an occupation tax. And in talking with people responsible in some cases for levying that tax I find that they always look upon it as a tax upon the occupation of the street, not using the name of the tax in the way it originally started—as being the character of business carried on. And many gas and electric-light and street-railway companies are compelled to pay a tax for occupying the streets in some form or other. Well, that is a very unwise policy, it seems to me, from the standpoint of the public. Because, taking a gas or electric company—they transmit the equivalent of an enormous amount of energy over or under the public streets without noise, wear and tear or causing the city the expense of maintaining the streets. A street-railway company operates on its own steel tracks, and it does not wear out the pavement, and to tell the truth, it saves a great deal of the city's pavement by the amount of trucking that is done on its tracks.

The CHAIRMAN. I assume we will have witnesses who will develop this part of the question more fully, but what I am trying to find out is if you can not sketch out in a word the things this commission will do.

Mr. DOHERTY. I am trying to think of a few; but if you will allow me to proceed a moment—no occupation tax ought to be put on a street railway, because a car carries an average of 30 passengers as compared with an automobile which carries 2, yet we are subjected to a paving tax and it is not. There was a time we wore out the pavement; there was a time when the horses littered up the pavement and we had to clean them. We have lots of obligations forced on us now that are relics of the past, and we can not get rid of them. I can not think of all of them sitting here. But every possible relief which can be given to the street railways and transferred from a specific charge against them to either the property holders or the

general fund should be done. Because even if a man has an automobile and does not use the street railway, he wants it there—it is an asset there to him. It is there ready to serve the needs of his premises, with a messenger boy or anything else that comes along; and in a way you could almost justify a subsidy for a railway rather than have it shut down. Even if the people did not use it enough to pay for it, it would still be a municipal necessity. One of my first thoughts would be to take off every load that can possibly be taken off of the street railway company.

The CHAIRMAN. That involves a very comprehensive study of the chief function of a utility with reference to its service to the public.

Mr. DOHERTY. Yes; and it even involves the matter of the differentiation between a street-railway company and another form of public utility, because there is a differentiation there.

The CHAIRMAN. Should this commission undertake to recommend a definite form of franchise to be used by utilities throughout the country?

Mr. DOHERTY. I would say no to that, because I assume we are not going to get away from regulation by some regulating body, and I think the franchise is more or less a superfluous thing, if you are going to have a regulating body. I do not think you can write into a franchise in advance as wisely as you can be regulated, and I take it that by no chance will regulation be given up of the public utilities; and if regulation is going to be maintained, it is a good deal better not to have any other instrument that interfered with regulation. Have your franchise just that you are able to operate and have it of an indeterminate character and subject to regulation, I would say—just thinking out loud, because I did not know that question would be asked and have not thought of it.

The CHAIRMAN. Then you would be satisfied with a recommendation for an indefinite term franchise?

Mr. DOHERTY. Yes.

The CHAIRMAN. And have the utilities regulated by public authorities?

Mr. DOHERTY. I would, as a street-railway man. I do not know as that represents the views of the other street-railway men.

The CHAIRMAN. Then there is one kind of a franchise which you would be satisfied to have us recommend?

Mr. DOHERTY. Yes.

The CHAIRMAN. Are there any other features you would have incorporated in that franchise?

Mr. DOHERTY. Well, I do not know how to distinguish between what is in the franchise and what is in the law creating the regulatory body. If the duty of the regulatory body is to act and act promptly, I would say the less in the franchise the better. Most every franchise to-day—if you would start out to-day and get a franchise from the city, you would get what I have seen in my own case; they want to give you half a page as to the rights of the company and 68 pages of restrictions on the company. That is what a franchise is to-day.

Mr. WARREN. And attempt to regulate in advance, for all time?

Mr. DOHERTY. Yes, and attempt to regulate in advance. Now, we are not asking to get away from State regulation, so if we are not asking to get away from State regulation and are going to have State

regulation permanently, it seems to me it is better not to write a State regulation in, in advance, at the time the franchise is granted.

The CHAIRMAN. Don't you think it would be well for a Federal commission to make certain general recommendations to the States and to the municipal authorities that can be incorporated in new franchises as they are granted?

Mr. DOHERTY. There may be some things, but I do not think of them now. But I am very sure you could make one very valuable recommendation by saying, "Put very little in it."

Commissioner SWEET. If real relief is obtained through this commission or otherwise, does it not, in your judgment, mean a rather complete revolution as compared with what has been; in other words, has there not been antagonism of a certain kind between the general public and the public-service corporations in the past—a feeling on the part of the public that the public-service corporations were grasping, were seeking to get more than they were fairly entitled to, and that it was the duty of the public to be very watchful and to do a great many things in the way of punishing the public-service corporations for what they might do?

Mr. DOHERTY. Well, you have described the attitude. I would use your same words in trying to answer your question.

Commissioner SWEET. Well, do you think that has been the situation?

Mr. DOHERTY. I think that has been the situation. I think there have been some grievances that the public have had, but I think they have been enormously overagitated; and so many men have capitalized the little original unpopularity of the utility corporations to put themselves into political power and have kept at it, and the public have felt that they had to be watched very close.

Commissioner SWEET. Is it not necessary to change that attitude entirely and wipe out this whole feeling, to get permanent relief?

Mr. DOHERTY. You have to make the public understand that ordinary, common garden variety of fair play demands that the street-railway company be given a fair and adequate rate of return, and it can not do it with the old rate of fare, with all its expenses increased so enormously.

Commissioner SWEET. Now you are putting that solely as a street-railway man and not as a citizen. Don't you think that instead of demanding it or recommending it as far as this commission is concerned—as a matter of justice to the street-railway company—that particular stress should be laid upon the fact that the public can not have this absolute necessity, to say nothing about convenience, unless it changes its attitude and becomes helpful and cooperative instead of having its tentacles out looking for trouble?

Mr. DOHERTY. Yes, sir; I agree with you thoroughly. But the only distinction at all between you and me is that I believe that sentiment would be largely removed if they did understand that these companies were really losing money. But you will find in every community some demagogue telling them that is all a bluff—the street-railway company is not losing money; and that is one of the troubles. But I agree with you on another thing, Mr. Sweet, and very, very thoroughly; and you took a slant at it, and I was hoping you would come out and say so. Let us assume we all do get wiped out; for every dollar we lose it will be nothing in comparison with the punishment inflicted upon the public.

Let us take our railroad situation. I saw the railroad situation made a toy of. I lived in Wisconsin, I was a young man there; and I tried to point out what was to be the effect of making the railroads of this country a political football. But on the plea of saving money for the wage earners, they kept reducing fares and regulating and regulating. Now the wage earners are not great travelers. And I maintain this, and this is conservative—that for every penny that was saved the wage earners of this country by a reduction of fares and regulation of railroads, it cost those people at least 10 cents in the way of increased food, increased cost of clothing, and increased cost of sheltering and housing them, because we were a rapidly growing country; we had more mouths to feed and more bodies to clothe and shelter and were not opening up more land to take care of them. Now in the end it was the public that paid the bill. The railroad companies paid first, but the big bill was paid by the public. And how much it cost the public after we got into the war I do not know, but if it had not been for the development of the automobile and the substitution of gasoline for horsepower I do not know how we would have fed ourselves and our Allies. We could not have done it. And that is just what foolish regulation cost and always does, that is done for the political advancement of the men who promote it. It would have cost us the loss of the war if it had not been for the development of gasoline-consuming devices instead of food-consuming animals.

Commissioner SWEET. Well, that is a little bit aside from the immediate question, but as a matter of fact—

Mr. DOHERTY. Well, it is a public utility, and we are doing the same way with the public utilities; and the public will pay the big bill in the future.

Commissioner SWEET. But the internal combustion engine has really played a big part in this war.

Mr. DOHERTY. Yes; and in hurting the street railways; and it did not save us on the fare question.

Commissioner SWEET. Certainly, but we would have no aeroplanes if it was not for that kind of an engine.

Mr. DOHERTY. No.

Commissioner SWEET. And no dirigible balloon.

Mr. DOHERTY. Well, we might have the balloon, but not the lighter-than-air machine. But it was the substitution of gasoline, a mineral product, for a food product, that enabled the existing lands to feed ourselves and our Allies.

Commissioner SWEET. Now, to come back to the main question—

Mr. DOHERTY. In other words, it is a mere accident that the matter of trying to capitalize railroad unpopularity for political advancement did not ruin us.

Commissioner SWEET. Now the real point is, to get away from that prejudice which we all realize does exist to a certain extent and that there was some ground for in the past a great deal more than there is at present; in fact, the evidence so far introduced seems to be that there is little if any ground for it now, and yet we all recognize its existence to a certain extent. How to get rid of it is the real problem, is it not?

Mr. DOHERTY. I think so. But I think the real way to get rid of it is to convince the public—that is, I think it will change their

attitude of unfriendliness if they thoroughly appreciate that the roads are losing money and that they must be supported, because this is a public necessity, it is not a matter of something alone purely for the benefit of the stockholders; but they must have it, and it is more essential to them than it is to the stockholders.

Commissioner SWEET. Then would it be your opinion that if this commission, by reason of all the investigation that it is capable of making within a comparatively short time, should report that the interest of the public, in its judgment, demands first the immediate relief that you have referred to and later on more permanent methods of relief, to say comparatively little about the interests of the companies, although that means, however, the interest of investors, who are a part of the public—often widows and orphans and a comparatively few people—

Mr. DOHERTY. Yes, and some of them savings banks and life-insurance companies.

Commissioner SWEET. Well, if the whole subject were presented to the public just exactly as it is and in a comparatively brief and forceful manner, backed up by what little authority there may be given to this commission in the minds of the public, do you think it would do some good?

Mr. DOHERTY. Oh, yes; it will do a great deal of good, and I do not believe that you men can sit and listen and examine every part of this case except when you get through you can honestly say that it is more greatly to the interest of the public to do this and to do it promptly than it is to the railroads or to the investors.

Commissioner SWEET. Well, it certainly seems as if the public ought to then be open-minded enough to realize that fact.

Mr. DOHERTY. Well, it depends how many newspapers are preaching the other side as a pure matter of their own selfish interest and how many people have already started out to capitalize their own political future on this particular issue and they can not very well back up.

Commissioner SWEET. Why should newspapers have any interest in their taking an opposite view?

Mr. DOHERTY. Well, lots of newspapers have built up their circulation by simply preying on the public utilities, thinking that that would be a matter of interest that would sell their newspapers.

I have been in the public-utility business—this coming fall, if I wanted to, I could celebrate my thirty-eighth year in the public-utility business. I have seen case after case of trouble hatched up between a city and a public-utility company that was done purely for political reasons. Now I could name you case after case where public councilmen or people of that sort would make a demand on the public utility where they would have been the most disappointed people in the world if the company had met the demand, and in many cases they were. And I could cite you other cases where the public utility met the demand for a reduction in rates and they immediately made some demand that they knew the company could not meet; and then they would have an issue they could go to the people with and promise them cheap gas or cheap current and they would get it for them if they would put them in office.

Now you have that to meet. An average reformer is a man, to my mind—in my time I have met a great many of them, and I would

describe him as a rule as a man who was willing to take every one of the great big human problems and use them as brickbats and use them as a pedestal by which he could get his shoulders above the balance of the crowd. Of course, many of them are genuine, but they are shallow thinkers—they are always going to tell you. I always measure a reformer, as to whether he is a real reformer or not, by whether he is willing to give the people something out of his own pocket or out of somebody else's pocket, and I do not see very many that are. They are generally looking for a good fat job.

The CHAIRMAN. If your definition of a reformer is accurate, then does it not mean that all reforms that have been accomplished for the benefit of civilization have been made to meet the selfish wishes of those who advocated them?

Mr. DOHERTY. Well, I will tell you. There are a lot of things you would call reforms probably that I would not.

Commissioner SWEET. The reformer you have been talking about is the spurious reformer, the man who is trying to trade on the principles of being a reformer and is not really one.

Mr. DOHERTY. Yes, but just think how many of those we have with us.

Commissioner SWEET. Yes, I understand.

Mr. DOHERTY. They kind of crowd out all the rest.

Commissioner SWEET. For one real reformer there are probably 15 or 20 or maybe 50 of these so-called reformers who are not in reality such. Is that it?

Mr. DOHERTY. I think your figure is a little low there. I would say 100 or 200.

Commissioner SWEET. Well, I presume we will all of us agree in rather despising those who sail under false colors of any kind.

Mr. DOHERTY. Well, I do not know as I do. I have a lot of sympathy with many of these public officers. You people know that the people right down here in the Senate and House can not vote as they really think. I took lunch to-day with a Senator at the Senate lunch room. He said of course they can not do it—they are such big cowards they can not do it. If they just did what they thought was really right they would never serve but one term, and they would not serve that one term out, if the article could be sprung on them.

Mr. WARREN. I believe they could vote what they really believe and stay there, but they do not think so.

Mr. DOHERTY. I do too. I think the public admire bold people. I think that is the reason Theodore Roosevelt was such a hero, because he had the nerve to tell the public where they could get off, and they liked it, but the average politician does not.

I went to a city official and said, "Are you going to allow a thing like this to be pulled?" He said, "What can I do? If I don't permit this thing to go through, people would say you had bought me out." It was a case of two opposition companies fighting. There was a man as honest as the day was long, but he felt he could not stand up and do what he knew was right, because it meant that sort of criticism.

Commissioner SWEET. I am going to turn the tables on you a little bit.

Mr. DOHERTY. That is fair enough.

Commissioner SWEET. I know of a case where a public-service corporation attempted to induce the appointing authority of a city to appoint a man on the board of assessors who had been a member of the common council and had been recognized all over the city as a very decided friend of public-service corporations. The appointment was not made. I know of another case where a public-service corporation attempted to induce a public official who had the appointive power to appoint as chairman of a franchise committee of the common council a decided friend of such corporations, and especially desired to have left off from that committee entirely a man who had shown himself somewhat advanced and a little too anxious to require street-railway companies to put down what is called the Trilby rail. And I could name a number of other instances of that kind that never got into the newspapers at all.

Mr. DOHERTY. Don't think that I am sitting here and claiming that the only virtue in the world belongs to corporation men. I do not. But I do say this—that the greatest degree of honesty that you will find in the United States you will find among the big business men of this country. And there is a reason for it, and it is a natural reason: Big business requires a certain amount of mutual trust every place. You do not advance men there who are thieves. Thieves have to work in squads of one; they have to watch each other. It is natural that business carried on with corporations should bring about the advancement of the men who are honest and trustworthy, and while I do not say for a moment but what—I am not here pinning any particular stars on them, that is, I am not claiming that the corporation men have done no wrong; but I would say there are certainly no more honest men in this country than corporation men. Unfortunately, they are badged wrong. If you go to Europe you will find everybody tells you, "Look out for the American business man." I say to you after doing business with most of the men in the European countries, there is no man as honest as the American business man, and yet he allows himself to be badged as the dishonest business man, on account of a few of our fakers who have gone over there and put things over on them. Now the corporation man, for not having defended his reputation, has been made to appear in the eyes of a great many people in America a little more dishonest than the average. Now they view something as being unfair when we try to get somebody put on a board who we know will be fair. We are not supposed to do that. They can go out and preach that as far as they want to. But the average corporation in this country is not looking for anything but a fair deal and they will be glad if they get that. They just want the common, ordinary garden variety of fair play. They will be satisfied with that, and it is that or ruination in some cases.

Commissioner SWEET. Let me say this, to close the matter up, and I think you will agree with me, that with many business men, big or little, there are some who are honest and men that you can admire from every point of view, and others who are not. You will find the same thing among newspapers and newspaper men. I think you will find the same thing among city officials; you will find some who are strictly honest and square and serving the city faithfully for compensation far below what is actually earned. You know that is a fact in many cases, do you not?

Mr. DOHERTY. Yes.

Commissioner SWEET. And there are dishonest ones. Men have been shown, many city officials; to have accepted bribes and business men have been known to give men bribes on school boards and common councils. Now these things all occur. We have got to admit it, and it is not fair nor is it wise for us to generalize too much and say that one type of man or people engaged in one kind of business are all right and nobody else is. Now the facts do not substantiate or sustain any such proposition as that. Now, then, when we come right down to the point before us, is not this the situation—that whatever may be said about public-service corporations or public officers or the general public or newspapers, that the points of antagonism that existed a few years ago have disappeared and that now the interests of the corporation, both public, private, and the general public and the newspapers, for that matter—because the newspapers are supported by the general public and ought to be carried on in the interest of the general public, and for that matter the interest of the politicians who used to trade to some extent in getting up on the housetops and decrying the public-service corporations—but the interests of all if properly understood are distinctly in favor of co-operation hereafter instead of opposition and of resorting to some method by which the general public shall not be deprived of the necessity of railroads and that the holders of bonds and stock as well, for instance, shall not be deprived of a reasonable income, and that some steps shall be taken if it is possible to find out what ought to be taken, to adjust this matter in a proper cooperative manner for the general benefit of all rather than in a spirit of opposition such as has existed before. Is not that true?

Mr. DOHERTY. Yes, sir; that is true.

Commissioner SWEET. Now, then, if that can be brought about—we may say that it will be bringing about the millenium, but it is not absolutely impossible that an approximation of that may be reached, is it?

Mr. DOHERTY. I do not think it is so difficult either.

Commissioner SWEET. It ought not to be, because it is a mere question of knowledge and knowing what the facts are, is it not?

Mr. DOHERTY. It seems to me obvious that the relief must be given.

Commissioner SWEET. That is all.

(Witness excused.)

The CHAIRMAN. We will stand adjourned until 10 o'clock Monday morning.

(Whereupon, at 5.20 p. m., an adjournment was taken until Monday, July 21, at 10 a. m.)

WASHINGTON, D. C., *July 21, 1919.*

Met pursuant to adjournment at 10 a. m.

Present: Parties as before.

The CHAIRMAN. Are you ready to proceed, Mr. Warren?

Mr. WARREN. All ready; yes, sir.

Mr. Chairman, at this time I should like to put in the statement of Mr. England, who was here on Friday but was not reached and could not well be here to-day.

The CHAIRMAN. Is that the witness you spoke to me about?

Mr. WARREN. That is the witness I spoke to you about.

The CHAIRMAN. You may file the statement.

Mr. WARREN. I will not read it. I will just read the statement accompanying it:

The business of the Electric Service Supplies Co. consists of a varied line of supplies and accessories for the construction and maintenance of electric railways, taking in pretty nearly everything used in the way of electrical and mechanical supplies.

The schedules attached show the actual selling prices of some of the principal lines, as well as comparative percentages of such prices, as between prewar period of 1914 and the years following, up to July 1, 1919. These figures have been compiled from actual sales records and therefore reflect the true condition as to prices prevailing during the period covered.

We see no indication of lower prices in the near future; on the contrary, there are unmistakable signs of a stiffening of prices in many lines. While labor is somewhat easier to obtain, the rates remain on prearmistice basis.

Respectfully,

A. H. ENGLAND,
Vice President and Treasurer.

Then follows these schedules of materials, and taking 1914 as 100 per cent, the six months of 1919 showed had an average percentage of 220 per cent.

SCHEDULE A.—Overhead line material; relative selling prices during years specified.

(Prices of 1914 taken as 100 per cent.)

Catalogue No.	Description.	Per cent.					
		1914	1915	1916	1917	1918	6 months, 1919.
50041	EG lightning arresters, 750 volts, direct current	100	100	115	120	127	136
50089	CE-2 lightning arresters, 2,500 volts, alternating current	100	100	100	100	123	136
31006	Type K, round top hanger, $\frac{3}{8}$ -inch	100	100	103	132	183	189
41162	Type K, round top hanger, $\frac{3}{8}$ -inch	100	100	105	156	191	207
30987	Type single curve with giant strain galvanized	100	101	124	175	248	257
30989	Type double curve with giant strain galvanized	100	102	122	192	255	265
31051	Type C, cap and cone, $\frac{3}{8}$ -inch	100	100	117	203	264	273
30995	Type C, straight line, galvanized	100	100	120	212	277	286
31169	Bronze ears, 15-inch, 2/0	100	121	167	182	198	188
31171	Bronze ears, 15-inch, 4/0	100	122	172	192	202	187
31173	Bronze ears, 12-inch, 2/0	100	119	162	181	196	181
31175	Bronze ears, 12-inch, 4/0	100	121	168	189	206	191
81097	Malleable iron clamps, 5-inch, galvanized	100	100	128	223	307	353
31107	Malleable iron clamps, 7-inch, galvanized	100	100	135	182	234	240
41425	Malleable iron clamps, 9-inch, galvanized	100	100	128	186	238	245
31219	Copper sleeves, 2/0, 16-inch	100	148	199	222	234	234
31225	Copper sleeves, 4/0, 16-inch	100	144	194	217	235	228
31237	Brass sleeves, 2/0, 16-inch	100	147	200	229	235	224
31243	Brass sleeves, 4/0, 16-inch	100	137	188	229	235	224
31274	Bronze frogs, 20"	100	100	133	148	205	194
31280	Bronze frogs, 15"	100	100	126	180	203	193
41586	Malleable iron frogs, 20"	100	103	130	175	200	190
41600	Malleable iron frogs, 15"	100	102	126	168	188	179
41634	Rigid R. A. bronze crossing	100	100	132	188	201	194
41550	Rigid R. A. malleable iron crossing	100	100	85	116	140	147
31290	Adjustable bronze crossing	100	100	137	191	210	207
41619	Adjustable malleable iron crossing	100	100	109	181	216	231
31298	Type K, section insulator 2/0, 24-inch	100	100	112	157	167	158
31322	Type G, section insulator, 2/0	100	100	144	188	189	175
31333	Giant strain insulator, 2-inch	100	100	115	176	226	232
31336	Giant strain insulator 24-inch	100	100	122	187	225	267
42104	Brooklyn strain, $\frac{3}{8}$ by 4 inches, galvanized	100	100	101	159	201	212
31396	Wood strain, 1 by 9 inches, galvanized	100	100	104	179	231	237
31398	Wood strain, 14 by 9 inches, galvanized	100	100	98	161	214	220
41858	Pole brackets, 9 feet 14 inches, A	100	100	115	217	278	294
41862	Pole brackets, 9 feet 2 inches, A	100	100	126	236	301	319
31403	Feeder wire insulator, 500,000 CM	100	100	116	159	205	210
	Average percentages	100	107	131	180	217	220

SCHEDULE A.—Overhead line material; average selling prices to electric railways.

Catalogue No.	Description.	Per cent.					
		1914	1915	1916	1917	1918	6 months 1919.
50041	E.G lightning arresters, 750 volts, direct current.....	\$350.00	\$350.00	\$402.50	\$420.00	\$443.34	\$476.00
50089	CE-2 lightning arresters, 2,500 volts, alternating current.....	440.00	440.00	440.00	440.00	542.50	589.40
31006	Type K, round top hanger, $\frac{3}{4}$ -inch.....	36.00	36.00	37.00	47.65	65.81	68.20
41162	Type K, round top hanger, $\frac{1}{2}$ -inch.....	41.00	41.00	43.00	64.02	78.14	85.00
30987	Type K, single curve with giant strain, galvanized.....	41.50	42.00	51.50	72.63	102.80	108.00
30989	Type K, double curve with giant strain, galvanized.....	73.00	74.50	89.00	139.85	186.42	193.00
31051	Type C, cap and cone, $\frac{3}{4}$ -inch.....	17.50	17.50	20.50	35.50	46.35	47.00
30995	Type straight line, galvanized.....	26.25	26.15	31.50	55.61	72.77	75.00
31169	Bronze ears, 15-inch, 2/0.....	28.25	34.10	47.25	51.38	55.96	52.00
31171	Bronze ears, 15-inch, 4/0.....	33.50	40.90	57.75	64.48	67.71	62.00
31173	Bronze ears, 12-inch, 2/0.....	25.50	30.25	41.25	46.18	50.00	46.00
31175	Bronze ears, 12-inch, 4/0.....	28.25	34.25	47.50	53.50	58.33	63.95
31097	Malleable iron clamps, 5-inch, galvanized.....	9.00	9.00	11.50	20.09	27.66	31.76
3107	Malleable iron clamps, 7-inch, galvanized.....	13.75	13.75	18.50	24.98	32.14	32.96
41425	Malleable iron clamps, 9-inch, galvanized.....	16.25	16.25	21.00	30.21	38.63	39.78
31219	Copper sleeves, 2/0, 16-inch.....	50.75	75.00	101.00	112.50	119.00	113.85
31225	Copper sleeves, 4/0, 16-inch.....	106.00	151.60	204.00	227.50	246.90	239.10
31237	Brass sleeves, 2/0, 16-inch.....	44.25	65.00	88.50	101.46	104.17	96.00
31243	Brass sleeves, 4/0, 16-inch.....	89.50	123.40	168.50	204.94	218.75	207.90
31274	Bronze frogs, 2/0.....	230.00	230.00	305.00	300.54	470.41	445.50
31280	Bronze frogs, 15".....	270.00	270.00	340.00	485.17	546.88	519.75
41586	Malleable iron frogs, 20".....	185.00	190.00	240.00	324.33	369.79	351.45
41600	Malleable iron frogs, 15".....	210.00	215.00	265.00	352.08	385.83	376.13
41634	Rigid R. A. bronze crossing.....	280.00	280.00	370.00	520.00	563.00	544.50
41550	Rigid R. A. malleable iron crossing.....	240.00	240.00	205.00	277.50	335.00	352.75
31290	Adjustable bronze crossing.....	335.00	335.00	460.00	638.75	702.50	693.00
41619	Adjustable malleable iron crossing.....	215.00	215.00	235.00	389.17	464.17	497.29
31298	Type K section insulator 2/0, 24-inch.....	565.00	565.00	630.00	886.08	944.17	891.00
31322	Type K section insulator, 2/0.....	395.00	395.00	570.00	742.30	745.00	693.00
31333	Giant strain insulator, 2-inch.....	24.00	24.00	27.50	42.14	54.30	55.70
31336	Giant strain insulator, 24-inch.....	32.00	32.00	39.00	59.75	72.04	85.55
42104	Brooklyn strain $\frac{3}{4}$ by 4 inches, galvanized.....	67.50	67.50	68.00	107.40	135.42	143.08
31396	Wood strain, 1 by 9 inches, galvanized.....	18.00	18.00	18.75	32.38	41.56	42.63
31398	Wood strain, 14 by 9 inches, galvanized.....	22.00	22.00	21.50	35.39	47.10	48.32
41858	Pole brackets, 9 feet 14 inches, A.....	135.00	135.00	155.00	292.67	375.59	397.63
41862	Pole brackets, 9 feet 2 inches, A.....	155.00	155.00	195.00	365.25	466.63	494.45
31403	Feeder wire insulator, 500,000.....	32.50	32.50	37.75	51.60	66.50	68.20
31406	Feeder wire insulator, 500,000.....	29.50	29.50	33.50	45.70	77.58	79.57

SCHEDULE B.—High tension transmission material; average selling prices to electric railways.

(Prices of 1914 taken as 100 per cent.)

Catalogue No.	Description.	Per cent.					
		1914	1915	1916	1917	1918	1919
360	Porcelain insulator, pin type, 66,000 volts.....	100	100	122	182	252	263
315	Porcelain insulator, pin type, 40,000 volts.....	100	100	112	183	266	295
3-3/4	Porcelain insulator, pin type, 23,000 volts.....	100	100	148	244	328	328
42375	Porcelain insulator No. 3, pin type, 20,000 volts.....	100	100	185	272	363	263
298	Porcelain insulator, pin type, 13,000 volts.....	100	100	109	166	211	211
42394	Porcelain insulator No. 12, pin type, 8,000 volts.....	100	100	130	190	228	231
42397	Porcelain insulator No. 44, pin type, 6,600 volts.....	100	92	113	165	194	194
2335A	Porcelain insulator suspension, 16,000 volts.....	100	100	127	201	262	262
	Cross-arm truss pin (Pat. 269), galvanized.....	100	100	129	187	203	203
	Cross-arm truss pin (Pat. 269), japanned.....	100	100	120	198	219	219
	Cross arm truss pin (Pat. 185), galvanized.....	100	100	111	137	151	151
	Cross-arm truss pin (Pat. 185), japanned.....	100	100	100	132	160	150
19420	Metal cross arm, 30 inches (Keystone triangle).....	100	123	167	167	194	200
46008	Metal cross arm, 36 inches (Keystone triangle).....	100	119	191	208	224	225
	Wood cross arm, 4 by 4 inches, cubic foot.....	100	100	133	150	198	204
	Wood cross arm, fir, 4 by 5 inches.....	100	91	80	111	145	150
31644	24-inch galvanized cross-arm braces.....	100	135	205	245	256	240
31684	x 12 inches galvanized bolts.....	100	136	215	260	274	256
31769	by 44 inches galvanized carriage bolts.....	100	136	234	269	286	265
31763	by 4 inches galvanized lags.....	100	153	265	309	328	306
31449	by 12 inches galvanized eye bolts.....	100	122	199	240	254	238
	Average percentages.....	100	110	152	201	237	236

SCHEDULE B.—*High tension transmission material; average selling prices to electric railways.*

Catalogue No.	Description.	1914	1915	1916	1917	1918	1919
360	Porcelain insulator, pin type, 66,000 volts.....	\$224.00	\$224.00	\$272.60	\$408.10	\$563.75	\$590.00
315	Porcelain insulator, pin type, 40,000 volts.....	57.60	57.60	64.38	105.20	153.10	170.00
2-3/4	Porcelain insulator, pin type, 23,000 volts.....	19.20	19.20	28.39	46.80	63.00	63.00
42375	Porcelain insulator No. 3, pin type, 20,000 volts.....	12.40	12.40	23.00	33.79	45.00	45.00
298	Porcelain insulator, pin type, 13,000 volts.....	12.80	12.80	13.96	21.19	27.00	27.00
42394	Porcelain insulator No. 12, pin type, 8,000 volts.....	5.20	5.20	6.75	9.87	11.83	12.00
42397	Porcelain insulator No. 44, pin type, 6,600 volts.....	4.60	4.25	5.25	7.86	9.00	9.00
2335A	Porcelain insulator, suspension, 16,000 volts.....	84.00	84.00	108.40	168.90	220.00	220.00
	Cross-arm truss pin (Pat. 269), galvanized.....	32.50	32.50	67.50	98.00	106.50	106.50
	Cross-arm truss pin (Pat. 269), japanned.....	41.50	41.50	50.00	82.25	91.00	91.00
	Cross-arm truss pin (Pat. 185), galvanized.....	36.50	36.50	40.50	50.17	55.00	55.00
	Cross-arm truss pin (Pat. 185), japanned.....	32.00	32.00	31.50	42.17	48.00	48.00
19420	Metal cross arm, 30-inch (Keystone triangle)...	1.05	1.29	1.75	1.75	2.04	2.10
46008	Metal cross arm, 36-inch (Keystone triangle)...	1.13	1.40	2.25	2.48	2.64	2.65
	Wood cross arm, fir, 34 by 44 cubic feet.....	6.60	6.58	8.75	9.90	13.06	13.43
	Wood cross arm, fir, 4 by 5.....	12.33	11.28	10.63	13.64	17.88	18.47
31644	24-inch galvanized cross-arm braces.....	10.90	14.60	22.30	26.69	27.90	28.13
31684	5.8 by 12 inch galvanized bolts.....	5.14	6.97	11.05	13.25	14.10	13.18
31769	3/4 by 44 inch galvanized carriage bolts.....	1.00	1.36	2.34	2.69	2.86	2.65
31763	3/4 by 4 inch galvanized lags.....	1.52	2.33	4.03	4.69	4.98	4.65
314	3/4 by 12 inch galvanized eye bolts.....	9.71	11.87	19.35	23.34	24.65	23.08

SCHEDULE C.—*Copper rail bonds; relative average net selling prices during years specified.*

(Price of 1914 taken as 100 per cent.)

Standard sizes of rail bonds.	1914	1915	1916	1917	1918	6 months, 1919.
4/0 by 7/0 by 10 inches.....	\$41.63	\$46.88	\$63.75	\$70.00	\$64.51	\$59.13
4/0 by 7/4 by 12 inches.....	45.07	50.75	69.02	76.73	69.95	64.02
4/0 by 7/4 by 36 inches.....	33.03	93.50	127.16	141.37	128.88	177.94
500M-CM by 1 by 15 inches.....	104.06	117.19	159.38	177.19	161.53	147.83
500M-CM by 1 by 20 inches.....	124.32	140.00	190.40	211.68	192.98	176.60
Percentages.....	100	112.6	153	170	155	142

(Price of 1914 taken as 100 per cent.)

Item.	Per cent.					
	1914	1915	1916	1917	1918	1919
Steel gear cases.....	100	105	126	211	238	239
Incandescent headlights.....	100	100	112	142	155	155
Trolley catchers.....	100	100	111	139	168	200
Curtain signs.....	100	110	165	175	200	213
Lighting fixtures.....	100	100	100	110	115	120
Fixture shades.....	100	100	104	121	132	166
Trolley poles.....	100	100	123	181	230	265
Trolley cordage.....	100	106	122	161	221	250
Fare registers.....	100	106	126	139	139	139
Motor gears:						
Westinghouse 101 sol., cast steel.....	100	106	119	206	224	224
Westinghouse 101 sol., forged steel.....	100	115	146	189	240	245
Motor pinions, 17 teeth, 5-inch face.....	100	116	167	244	260	268
Average percentages.....	100	105	127	168	194	207

SCHEDULE D.—*Car equipment specialties; average selling prices to electric railways.*

Item.	1914	1915	1916	1917	1918	1919
Steel gear cases.....	\$11.40	\$12.00	\$14.40	\$24.00	\$27.12	\$27.20
Incandescent headlights.....		8.50	9.50	12.04	13.20	13.20
Trolley catchers.....	4.50	4.50	5.00	6.25	7.53	9.00
Curtain signs.....	10.00	11.00	16.50	17.50	20.00	21.25
Lighting fixtures.....	1.25	1.25	1.25	1.38	1.44	1.50
Fixture shades.....	3.80	3.80	3.95	4.60	5.02	6.30
Trolley poles.....	1.03	1.03	1.27	1.86	2.37	2.73
Trolley cordage.....	.36	.38	.44	.53	.795	.90
Fare registers.....	18.00	19.00	22.50	25.00	25.00	25.00
Motor gears:						
Westinghouse 101 sol., cast steel.....	14.90	15.75	17.80	30.75	33.40	33.40
Westinghouse 101 sol., forged steel.....	13.88	15.94	20.25	26.25	33.25	34.00
Motor pinions, 17 teeth, 5-inch face.....	3.05	3.55	5.10	7.45	7.94	8.18

Mr. WARREN. Then, if I may, I should like to put in a similar statement of Mr. James S. Thompson, who was here also, as a part of our cost-of-material witnesses, who is vice president of the American Brake Shoe & Foundry Co. It is accompanied with blue prints and charts and relates principally to brake shoes and things of that sort. I suppose I had better not take time to read that, but I will file that also.

The CHAIRMAN. You may file it.

The statement is as follows:

My name is James S. Thompson; I reside at Pelham, N. Y.; I am a vice president of the American Brake Shoe & Foundry Co., whose plants for the manufacture of brake shoes and cast-iron products are at Norwood, Mass.; Buffalo, N. Y.; Burnside, Ill.; Chicago, Ill.; Melrose Park, Ill.; Cincinnati, Ohio; Mahwah, N. J.; Baltimore, Md.; Minneapolis, Minn.; Chattanooga, Tenn.; South San Francisco, Calif.; Los Angeles, Calif.

My connection with this company has covered a period of 17 years, during a part of that time as assistant chief engineer in charge of service performance of brake shoes used on steam and electric railways. For a considerable portion of time I have had some supervision over sales, and for the last three years as vice president in charge of engineering matters of all characters, particularly those pertaining to the service of brake shoes used on the railroads. Throughout the period of my connection with this company I have kept myself familiar with the selling prices of our finished product and generally with the cost of production.

The principal product of our company is brake shoes for electric railroads, for which many types and patterns are used, and steam railroads, for which the types and patterns are generally the same.

I have prepared and annexed hereto and made a part of this statement a blue-print curve entitled "American Brake Shoe & Foundry Co.; change in cost of raw materials from 1912 expressed in per cent." This chart bears the identification mark No. 1, and shows, in effect, that I have taken the prices per net or gross ton, as the case may be, as of July 1, 1912, as 100 per cent, the prices at that time presenting within a slight variation the average costs during the 10 years preceding. The chart shows changes in percentages of cost from July 1, 1912, at yearly intervals to July 1, 1918. Percentages of costs are also shown as of November 1, 1918, and monthly changes thereafter to and including July 1, 1919. The advances in per cent in the prices of these raw materials which we have been obliged to purchase are correctly shown and set forth on said blue print.

This chart shows generally that from July 1, 1912, to July, 1915, there had been slight reductions in the costs of materials. From that date, however, up to and including July 1, 1917, the costs increased rapidly, and the peak of all raw material prices was reached upon that date or within a few months thereafter, at which time the Government established maximum prices for the mate-

rials we use, and the chart therefore shows declines to the Government prices. From the date of establishment of the Government prices in September and October, 1917, until the signing of the armistice in November, 1918, the prices remained the same or increased slightly, due to additional charges for transportation and, in the instance of coke, to increase in the Government price.

After the signing of the armistice prices remained comparatively steady for a brief period, excepting for scrap iron, and then declines occurred in all materials until June of 1919, at which time the prices of scrap iron and coke increased, so that on July 1, 1919, there had been an increase of 12 per cent in scrap iron over the June 1 purchases and 10 per cent in coke. The chart shows that the increases in the prices of raw materials on July 1, 1919, over those of July 1, 1912, were as follows:

	Per cent.
Steel plate-----	136
Pig iron-----	108
Scrap iron-----	86
Coke-----	84

It may be added that since July 1, 1919, until this date, July 18, there has been further increase in the price of scrap iron, amounting to about 7 per cent, and it is expected that additional advances in steel plate, pig iron, scrap iron, and coke are imminent.

I have prepared and annexed hereto and made a part of this statement a blue-print curve entitled "American Brake Shoe & Foundry Co., average daily wage expressed in per cent from July 1, 1919." This chart bears the identification mark No. 2. The percentages as shown upon said blue print are correct and in accordance with the books of our corporation. This shows in effect that I have taken the labor cost as of July 1, 1916, as 100 per cent, the rate at that time representing, with slight variation, the average covering the 10 years preceding. This curve shows a constantly increasing scale, the most rapid increase occurring from July 1, 1918, to January, 1919, during which period the increase was 41 per cent. It will be noted from the chart that from July 1, 1916, to April 1, 1919, the daily wage scale increased 106 per cent.

For many years preceding July 1, 1915, the cost per ton of materials entering into the manufacture of our product, together with the labor costs, remained practically uniform, and there had been no advance in the selling prices to the electric railroads. However, the selling prices were increased from July 1, 1915, from time to time, until a maximum increase of 108 per cent had been reached. The present selling prices are 83 per cent in excess of those of July 1, 1915.

The company with which I am connected are not producers of the raw materials used in the manufacture of brakeshoes. These materials are secured by purchase, and in reaching a conclusion relative to the costs of materials in the immediate future it may be well to state that such materials are the product, in a great measure, of accumulated labor, and we do not see the possibility of a reduction in the cost of material and, consequently, the selling prices of our product, unless there is a decrease in the labor rates.

Mr. WARREN. There is one other statement of a witness, Mr. Renshaw, an engineer who was with the Fuel Administration during its activities and took great interest and did a great deal to introduce various economies in connection with the conservation of fuel, such as the skip-stop and matters of that sort. He was here all day Friday and I think Thursday, also, but could not be here this week; and he had prepared a statement from which he was going to testify, which is at our office, and I should like to file that, if I may, as soon as it comes down.

The CHAIRMAN. May his statement and the other two which you have just filed be subject to the provision that if the commission at any time desires to cross-examine these witnesses with reference to any matters in those statements, they may be called?

Mr. WARREN. Yes; exactly. I should like also to put in, if I may, a communication from the actuary of the Association of Life Insur-

ance Presidents, which is a rather short one, and I will read it. It relates merely to the distribution of securities as regards the life insurance companies. It is addressed to the statistician of the association, dated July 16:

Responsive to your inquiry of recent date regarding the investments of life-insurance companies of the United States in electric-railway bonds and stocks, we are very glad to give you the following information, which you are at liberty to use in any way which you may deem wise:

The investments of 26 life insurance companies in electric-railway bonds and stocks—these 26 companies representing every company in this country having \$500,000 or more invested in public utilities—amount in bonds to \$109,624,550.77 and in stocks to \$6,968,120.17. This large investment represents policyholders' money held in trust and is the property of individual policyholders, numbering over 34,000,000, scattered all over the United States. With this in view, it would seem wise to emphasize, particularly, that it is to the individuals' interest to have such investments protected, as any depreciation in these funds, due to a decrease in the value of such investments, reverts at once, in a detrimental way, to the interest of each individual.

I have asked your office in New York to convey this information to you by wire, and this letter is to confirm my telephone message. If we can be of service in preparing additional facts to present before committees, we shall be only too glad to place our facilities at your disposal.

Yours, very truly,

GEORGE W. SMITH, *Actuary*.

The CHAIRMAN. Is there evidence within your possession which shows the amount of stocks and bonds of these utilities that is in the possession of life-insurance companies?

Mr. WARREN. Nothing other than that. That covers 26 companies—it covers all the companies, Mr. Smith says, holding severally more than \$500,000 of the securities, and the total which he gives is one hundred and nine million and odd dollars for bonds and nearly \$7,000,000 of stocks.

The CHAIRMAN. Would it not be well to develop for the record some evidence to show where utilities must go for money to use for new construction or for the refunding of bonds and things of that kind? Now, my thought is that it might be shown that a street-car company is something other than essentially a local institution. Where it needs money perhaps it can not secure it in its own locality; thus it may have to go to the market centers for that money. When it presents its application to the bankers or others, it must be able to establish its credit, and that credit can only be established by showing that the business is upon a sound basis. I think it would be well if you could develop something along those lines.

Mr. WARREN. Yes; we will endeavor to do that, Mr. Chairman. I expect to-day to introduce witnesses chiefly on the subject of cost of service, but before I do that I should like to call one witness, Mr. Lucius S. Storrs, president of the Connecticut Co., which operates a very large portion of all the street-railway mileage in the State of Connecticut.

Mr. Storrs, will you take the stand?

STATEMENT OF MR. LUCIUS S. STORRS.

Mr. WARREN. Your full name.

Mr. STORRS. Lucius S. Storrs.

Mr. WARREN. I have already stated that you are the president of the Connecticut Co.

Mr. STORRS. President of the Connecticut Co.

Mr. WARREN. And have been president for how long?

Mr. STORRS. Nine years.

Mr. WARREN. And I think you are an engineer by profession?

Mr. STORRS. Yes, sir.

The CHAIRMAN. Where does that company operate?

Mr. WARREN. In the State of Connecticut, almost exclusively, does it not?

Mr. STORRS. Yes; exclusively and entirely within the State of Connecticut.

Mr. WARREN. You also, I think, are vice president and in charge and control of the Berkshire Street Railway Co.?

Mr. STORRS. Yes.

Mr. WARREN. Which operates in the western part of Massachusetts?

Mr. STORRS. In the western part of Massachusetts and southwestern Vermont, and over the line into New York.

Mr. WARREN. So it crosses the western end of Massachusetts and goes through a corner of Vermont into New York?

Mr. STORRS. The total mileage I can give you in detail if you wish.

Mr. WARREN. Yes.

Mr. STORRS. The Connecticut Co. operates 696 miles of electric-railway trackage in Connecticut and the Berkshire Street Railway 164 miles of electric-railway trackage in the States of Massachusetts, Vermont, and New York.

Mr. WARREN. You have given special attention among other subjects relating to the operation of street railways to the effect of the automobile business, have you not?

Mr. STORRS. Yes, sir.

Mr. WARREN. And the jitney competition?

Mr. STORRS. Yes, sir.

Mr. WARREN. And you have encountered a good deal of jitney competition to your lines at various points in Connecticut?

Mr. STORRS. Yes; very largely throughout Connecticut.

Mr. WARREN. Are you prepared to go on without my questioning you and describe to the commission what you have found about the jitney and automobile, the effect of each upon the street railways and statistics relating thereto?

Mr. STORRS. I am. I have some statistics here as well as a general statement in connection with it, and if I may be allowed I will present it in that way, if Mr. Warren wishes.

Mr. WARREN. Yes.

Mr. STORRS. In order to carry the statistics through, if I may, I will sketch it over. The rapid development of the automobile business has had a tremendous effect upon the earnings of electric railroads throughout the country; that, attendant with the very great development of the perfected highway and the permanent paving of city streets.

I have a tabulation here prepared as the most detailed study of the automobile which has been prepared in any Commonwealth, which is that of the Special Commission on Motor Vehicles of the Com-

monwealth of Massachusetts, and as it is rather a lengthy table I will merely sketch a few of the heads.

Beginning in 1903, at the time they began to register the automobile under the present act there was a total of 3,241 automobiles registered within the Commonwealth of Massachusetts. Fifteen years later, in 1918, there were 160,000 pleasure automobiles, private cars and with motor trucks and motorcycles sufficient to bring that total up to 193,000. That is, in 15 years, from 3,200 to 193,497. During that period the history of the electric railroads in Massachusetts is one of rapidly approaching insolvency. Two hundred and fifteen miles of electric-railroad tracks within that State have been abandoned. The fares in the city of Boston have been raised to 10 cents with an attendant deficit to be met from the State treasury under their plan of operation of over \$2,000,000, and throughout the State the fares have been gradually increased, but with the rapid increase in the cost of producing transportation they have not been able to make the income and the outgo quite equal.

Report of Special Commission on Motor Vehicles in Massachusetts.

Year.	Auto- mobiles.	Trucks.	Total auto- mobiles and trucks.	Motor cycles.
1903.....	3,241	.....	3,241	502
1904.....	3,772	.....	3,772	489
1905.....	4,889	.....	4,889	533
1906.....	6,572	.....	6,572	665
1907.....	7,733	.....	7,733	832
1908.....	18,066	.....	18,066	1,922
1909.....	23,971	.....	23,971	2,394
1910.....	31,360	.....	31,360	3,358
1911.....	38,907	.....	38,907	3,658
1912.....	50,132	.....	50,132	5,034
1913.....	62,660	.....	62,660	7,127
1914.....	77,246	.....	77,246	8,161
1915 ¹	90,580	12,053	102,633	9,520
1916.....	118,615	13,194	136,809	10,713
1917.....	147,310	28,964	174,275	11,065
1918.....	160,486	33,011	193,497	12,862

¹ This is the first year trucks were registered separately from pleasure cars.

As far as the United States is concerned, a tabulation has been prepared through the Census Department and others for the last four years for which the accurate figures are available, showing the motor-vehicle registration in every State in the Union. In 1914 there were a total of passenger cars and commercial cars, the passenger cars being very greatly preponderant, of 1,711,000. On the basis of the then population, that was 1 car for every 64 people, or assuming 4 members to a family, 1 car for every 19 families. In 1918, these figures had reached a maximum of 6,140,000 automobiles or 1 for every 19 of the then population, or 1 for every 5 families.

Now, during the first six months of 1919 the records which we have been able to obtain in but few States show there is an alarming further increase in the use of the automobile.

Total number of vehicles in the United States.

	Passenger cars.	Commercial cars.	Total motor vehicles.	Population.	Number of persons per pleasure car.	Number of families per pleasure car.
Dec. 31, 1914.....	1,574,431	136,907	1,711,338	98,781,324	62	16
Dec. 31, 1915.....	2,240,229	205,435	2,445,664	100,399,318	44	11
Dec. 31, 1916.....	3,243,631	301,321	3,544,952	102,017,312	31	8
Dec. 31, 1917.....	4,643,481	442,478	5,085,959	103,635,306	22	6
Dec. 1, 1918.....	5,352,350	593,092	5,945,442	105,253,300	19	5
Dec. 31, 1918.....	.....	.....	6,146,617	.....	.....	.....

Remarks: Figures based on separate registrations of commercial cars in 16 States and estimates of number of commercial cars by secretaries of state in 5 States.

It is interesting to note that during that period the amount available for city paving and highway betterment throughout the country reached in 1917-18 a gross of \$255,000,000, or an appropriation from the taxpayers toward highway betterment for the benefit of the automobile users of slightly under \$2 per capita of the population. The only study that has been made that I know of of the electric-railway situation is that in Massachusetts, in which an attempt was made to show the amount of tax which would have to be assessed against the population of the various communities in order to keep the electric railways of the State as a whole solvent, which brought about the figures of a tax ranging from \$2 per capita in the small villages to slightly under \$1 per capita in the larger cities.

Of the amount of contribution to the paving program and the betterment program of the streets throughout the country, so far as we can differentiate that impost from general imposts made upon the electric railways, it would indicate an appropriation in the neighborhood of \$16,000,000 per year required of the electric railways to conform to the requirements of the communities in the State in the street and road betterment program—all that, of course, in the ultimate analysis being a tax upon the car rider for the benefit of the more fortunate member of the community who has an automobile. At the present time the automobile industry, in its efforts to expand the use of the cheaper car, has adopted as a slogan for future publicity, "The world owes you a car," with the idea of developing with that as a slogan a certain amount of unrest and dissatisfaction in the mind of the individual who does not already own an automobile.

In parts of the Commonwealth of Massachusetts, and doubtless it is true in other parts of the United States, while electric lines were built through strictly summer-resort territory, such as the Berkshire Hills, which has been a very popular summer trip, some years ago the tourists came in and spent a week or a month in some favorite inn with an occasional trolley trip through the hills. Now the tourist comes in in his automobile, and depending upon his standing, a very elaborate one or a very simple one, stays a day or two and passes on to some other part of the country. That has had a most disastrous effect upon the revenue of the electric lines in the territory, necessitating a very material decrease in the service rendered—that decrease

now running as high as two-thirds—that is, one-third of the service which was originally rendered on those lines which are still in operation only is given. Some lines were abandoned, some of them entirely junked, the tracks torn up and the wires torn down, and on other lines the service discontinued entirely, and on other lines a measure of local relief or aid given to the corporation for continued service of one or two cars to serve the little village and the small communities around.

With the cheap automobile and the even cheaper second-hand car there has sprung up a measure of competition with the electric railroad which, when not recognized as competition, has been very serious upon the revenues of the transportation utility. That is the jitney. And there is the development of the small second-hand and jitney-bus automobile carrying 20 passengers. In those communities where the essential need of transportation has been thoroughly recognized and the responsibility of the transportation utility to the community expressed in form of statute—that is, the requiring of the jitney bus a regularity of service during all periods of the day, a certainty of service over particular routes, a responsibility in case of accident hazard, and also a measure of tax to compensate for the pavement and other facilities offered by the city—that has placed that competitor upon what might be considered a legitimate basis.

In other communities, however, as yet there has been no regulation which has been effective from the standpoint of the community in giving essential means of service, and in those parts of the country the jitney operates in casual service over certain routes or as far as the individual may have passengers, turning back into the center and picking up another load, and if by any chance a number of people are waiting to go into other portions of the city, going on other routes. They are irresponsible, the title to the car remaining frequently in the hands of the manufacturer or in the name of the wife of the driver; and the only property which can be attached from the standpoint of those who might be injured by accident being that of the deteriorated automobile, of little or no value.

I have some interesting statistics in connection with that. New Jersey is one of the States in which the laws have not been effective from the regulatory standpoint. I am speaking now always from the standpoint of the regulations required by the community itself to give a measure of service which might be of value. There the increase in competition has been directly attendant upon an effort of the electric-railway utility to obtain increases in revenue through changes in its rates of fare. From a total of 120 jitneys operating in 1914, carrying a total of 1,000,000 passengers, to August, 1918, a total of 232 jitneys and carrying a total of 1,400,000—that is, the increase under the straight rate of fare, without any increase on the part of the electric railway—to an increase of 601 cars immediately after the increase of 1 cent for a transfer, to the period of a 7-cent fare and 1 cent for transfer, a total of 1,040 cars with estimated earnings as estimated from the returns of the jitneys for tax purposes of over \$3,000,000 a year; and all of that entirely irresponsible and a service which would not meet the requirements of the com-

munity by any stretch of the imagination, were it not for the excellent service given by these public utilities.

Connecticut also has no effective jitney regulation; in fact, no statute at all up until very recently from which any basis of regulation might be determined. A very careful analysis of the service in the city of Bridgeport, which is more largely overrun with that type of competition than any other, shows that jitney routes parallel practically all of the city streets on which service by the utility is rendered, those jitneys running from a terminal convenient to their service 1 mile to 2 miles from the city center, into the city center and returning, one fare in, but not across the city center, a short-line car with occasional cars running from a short distance out from the center on one side to a short distance out from the center on the other side, 50 per cent of the total passengers riding on electric railroads and jitneys carried by the jitneys within the area of $1\frac{1}{4}$ miles of the center of the city; a total of 68 per cent carried by the jitneys within $1\frac{1}{2}$ miles; that is, including the $1\frac{1}{4}$ miles; 44 per cent of the total passengers riding within the area of 2 miles, showing the rapid decrease in jitney business beyond the $1\frac{1}{4}$ to $2\frac{1}{4}$ miles, and on only 56 per cent of the total of the entire city area did the electric railway have the opportunity of giving a service similar to the jitney service.

There is no question but that the electric railway could not compete with its competitor, could not produce a satisfactory service, if the jitney service is by any means at all satisfactory, and it must be if they carry such large numbers, to make a very handsome profit, and because the jitney is confined solely to the area of short riders in the densely settled portion of the community. The electric-railway service, on the other hand, extends miles beyond the densely settled portion of the community into the rural districts, the country districts, the nonrevenue-producing area, that area in which, by the very enthusiasm and supreme optimism of the original promoters of the electric railroad, these lines were pushed from the city center, by reason of the fact that an electric car could run so much more rapidly than a horse-car.

Mr. WARREN. I did not catch the per cents you gave the jitneys in the whole city area.

Mr. STORRS. Fifty-six. That takes in, by the way, an area of $4\frac{1}{2}$ miles in radius from the center of the city, over two-thirds of the total business being done within an area of 2 miles from the city center and 50 per cent, only half of it, being done in the area of 4 miles, leaving to the transportation utility the unprofitable long-haul business and taking the only profitable business there is in the community.

That is occasioned very largely by reason of the very narrow New England streets, congested to such an extent that it takes a very great length of time for even the most rapidly moving electric car to pass through the city business area.

Comparison of number of passengers carried by street railway and jitneys, classified by length of ride.

In both directions.	On the railway.	On the jitney.	Total.	Per cent taking jitney.
Riding within 1½ miles radius of center of city.....	5,432,947	5,561,451	10,994,398	50.58
Riding more than 1½ miles, but less than 2 miles from center of city.....	4,805,761	10,620,347	15,426,108	68.85
Riding more than 2 miles but less than 2½ miles from center of city.....	3,395,431	2,758,041	6,153,472	44.82
Riding more than 2½ miles but less than 3½ miles from center of city.....	239,724	-----	239,724	-----
Riding more than 3½ miles but less than 4½ miles from center of city.....	860,048	-----	860,048	-----
Total.....	14,733,911	18,939,839	33,673,750	56.245

The matter of the jitney and general electric-railway conditions was studied in the State of Connecticut by a commission appointed last winter—a commission made up by members of the legislature and also representatives appointed by the governor, and they summed up their consideration of the jitney competition, I think, in a very admirable way, and I would like to quote from that:

Originally the street-railway companies obtained a franchise and charter granting them exclusive transportation rights over certain specified lines, and in consideration of such exclusive rights they were and are called upon to pay an annual tax to the State of 4½ per cent on their gross revenue.

That is, that happens to be the State law in Connecticut.

Instead of being protected in the holding of a privilege which was practically a monopoly, changed conditions have developed a new type of transportation service along the highways over which the trolleys run which has resulted in serious inroads in their revenues. There seems to be no question of the right of this new and needed supplement to the trolley service to serve the public. The commission believes, however, that this jitney service should be governed and regulated and be subject to the same control as is placed over other classes of common carriers, and it believes that the patrons and the public should be guaranteed redress for loss of life or personal injury in the same degree and manner that other common carriers are required to provide. We believe that the jitneys should be regulated as to schedules, routes, and rates in the same manner as the street-railway companies.

It is useless to assume that the jitney can by any manner of means take over the transportation within the city area. It seems to me that the best answer to that is a very careful study which we have made of the possibility of something of that kind in connection with one of the large cities, a congested type of old New England street, with a population of 180,000. It would be necessary for jitney buses of a capacity of 20 passengers, loaded to full capacity, to come into the central business loading zone, and as in the case of all the New England type of city and a great many other cities throughout the country, business originates or centers around the central green or square or business area of but relatively a few blocks—it would be necessary, as I say, for 6½ of such type of buses to enter and leave the central business loading zone loaded to the full capacity every minute during the rush hours each day; that is, for a period of something like 6 hours, morning and night rush hours, an absolutely impossible condition imposed upon city streets, together with the use of the privately owned automobile and the truck and pedestrian and

whatever other vehicular or other traffic there might be through the city area.

The development of the motor truck has also had a serious effect upon the revenues of the electric lines. That is now becoming more and more apparent as we see makeshift seats placed upon the motor trucks or trucks loaded to full carrying capacity in space, if not in tonnage, of those bound out for picnics or to other places of resort.

A case in point that will be of interest is this: Some time ago in one of the New England cities there sprung up unexpectedly to the transportation utility a very large business in shore bathing by the foreign element entirely—Russian Jews, Lithuanians, Italians, and Greeks—which required an immediate increase of transportation during the hotter summer days, and especially Saturdays and Sundays, of some 20 to 30 extra cars of full carrying capacity—that is, a carrying capacity of 75 to 100 passengers, depending upon the number that might stand. That ran over a period of three or four years, and as there was a great deal of difficulty to get the fares from all the mothers of the small foreigners—they would not all of them acknowledge the individual children—the traction utility put in a prepayment inclosure through which they all had to pass and pay their fare going in. That was very effective in getting the electric-railroad fares, but, unfortunately, the fathers in a great many cases were vegetable vendors, or ice vendors, or something of that kind, and they all of them use their motor trucks, which were normally used for their business, by putting in extra seats and taking down all these hordes of people to the shore, with the result to-day that there is no demand whatever for transportation by the utility.

Commissioner SWEET. Are you speaking now of Bridgeport?

Mr. STORRS. No; I am not speaking of Bridgeport at the present time. I am speaking of New Haven, sir.

One of the very profitable by-products of the electric-railway business has been the carriage of goods in small packages or in larger quantities. That has been developed very largely through our communities, and the total revenue is relatively small—about 8 per cent of the total coming from the carriage of goods of various kinds—but with the excellence of the highways throughout New England the motor truck bids fair to absorb almost entirely, or very largely, the short-haul high-rate express business—that which is the most profitable.

Commissioner WEHLE. That affects your interurban lines?

Mr. STORRS. Entirely; yes, sir.

Commissioner WEHLE. But what per cent, speaking in terms of percentage, has the package service of the interurban increased in the past five years in your district?

Mr. STORRS. It has decreased in the last—well, I want to put that with a qualification.

Commissioner WEHLE. Yes?

Mr. STORRS. In the last three years it has decreased by reason of the motor-truck competition.

Commissioner WEHLE. It does not show any increase then in the past five years?

Mr. STORRS. I think it would in the last five years. I would want to qualify that, but I think that in three years it has shown a decrease.

Commissioner WEHLE. Do you have through billing arrangements on less than carload shipments through New England?

Mr. STORRS. Not outside of the State of Connecticut. We have those billing arrangements there.

Commissioner WEHLE. You do an interline billing in the State of Connecticut, but not in the other States?

Mr. STORRS. We control about 85 per cent of the total mileage in the State of Connecticut. We do have interline billing though, however.

Commissioner WEHLE. A shipper can not effect interline billing from a point in Connecticut to a point, say, in New York or Massachusetts?

Mr. STORRS. There has been no demand for that type of service. That has been very carefully watched, but there has been no demand for it; and when occasion arises, if there are individual shipments and that occasion arises that convenience is afforded, particularly during the congestion of war-time transportation.

Commissioner WEHLE. But there has been no attempt, has there, on the part of any urban electric company in Connecticut to carry packages within the city?

Mr. STORRS. Oh, yes.

Commissioner WEHLE. From one point within the city to another point within the same city?

Mr. STORRS. Well, we have various express terminals within the city. We do have a measure of carrying packages by tickets on the passenger cars themselves which is availed of to a certain extent, although none of that is within the city areas. There has been no attempt on the part of the public to avail themselves of the service which can be rendered, except occasionally as between two industries where there is a large shipment, we have a great deal of that industrial movement.

Commissioner WEHLE. Has there ever been any test of any franchise in Connecticut with reference to the authority or power of a street-railway company to carry packages within the limits of a city?

Mr. STORRS. No serious attempt. There has been some question as to that.

Commissioner WEHLE. The exercise of that right has never been resisted by anybody?

Mr. STORRS. No. Well, some years ago there was; it was not a serious resistance, but there was a little objection to it.

Commissioner WEHLE. When the passenger himself carries the package did I understand you to say that the regulations of the company provide that an additional compensation be paid the carriers?

Mr. STORRS. No; that was in case a package is sent from—well, particularly from some drug store to some home; it can be sent that way on a trolley car by a tag that is put on it. When the passenger carries his own package it is carried free.

Commissioner WEHLE. Take some city. New Haven, for instance. On what basis do you render that service?

Mr. STORRS. By a tag—an express tag which is put on the package, and the package is taken on the car and delivered to the motor-man and he in turn delivers it to whoever calls for it at the other end.

We do not make any delivery, of course, in a case of that kind except from the individual to the car crew and back.

Commissioner WEHLE. What is the compensation that the company receives for that service?

Mr. STORRS. I am trying to refresh my mind, as we have made some changes in those things. There is a minimum of 25 cents.

Commissioner WEHLE. Does it amount to anything at all in revenue?

Mr. STORRS. Very little; not enough to notice.

Commissioner WEHLE. These companies carry newspapers for distribution; do they not?

Mr. STORRS. Yes.

Commissioner WEHLE. To distributing points within the city?

Mr. STORRS. Yes.

Commissioner WEHLE. Does that amount to anything in revenue, say, in New Haven?

Mr. STORRS. Very immaterial. I will be very glad to give you those in detail. I would rather have them that way than give them from recollection. I will be very glad to supply that information.

Commissioner WEHLE. Mr. Chairman, would you suggest that the witness put that in the record—his revenue from the carriage of papers?

Mr. STORRS. I can easily get our statistical office to draw that up in detail and send it down for filing in the record.

The CHAIRMAN. You can file with us a statement showing the gross revenue secured from the handling of the mail and express and freight and at the same time your passenger revenue.

Mr. STORRS. We have no mail.

The CHAIRMAN. You have no mail?

Mr. STORRS. No. The compensation given by the Post Office Department was so immaterial that we declined to carry the mail any further some years ago.

The CHAIRMAN. Will you file a statement showing your gross revenue divided into the different classes?

Mr. STORRS. I will be very glad to do that.

Mr. WARREN. I can give you those figures for Massachusetts, Mr. Wehle, I think—for the whole State, if you care to hear them.

Commissioner WEHLE. I think it would be very interesting.

Mr. WARREN. The passenger revenue (this was for the last year—I have not filed this yet, but I mean to)—this is a certified compilation of the figures for all Massachusetts, which I got from our public-service commission before coming down here. The passenger revenue was forty-three million ninety-two thousand odd dollars for the year; special-car revenue, seventy-five thousand odd dollars; mail revenue, \$41,852; express and baggage revenue, \$175,625; milk revenue, \$15,437; freight revenue, \$1,072,329; miscellaneous transportation revenue, \$20,811. So from all of those sources the revenue was increased from \$43,092,000 to \$44,493,000, or about \$1,400,000.

In your investigation of the automobile and jitney question, did you find any States or localities where either the privately owned automobile or the jitney paid any tax for the use of the highway other than such registration fee as might be required under the laws?

Mr. STORRS. I believe there are some States in which a gross revenue tax is fixed also.

Mr. WARREN. Is that true in Connecticut?

Mr. STORRS. It is not true in Connecticut.

Mr. WARREN. And not in Massachusetts?

Mr. STORRS. No; not in New England at all.

Mr. WARREN. You spoke of a Massachusetts investigation of the amount necessary to maintain the electric railways generally on a solvent basis as regards income and outgo. I think you spoke of \$2 per capita of population; was is not \$2 per thousand of valuation?

Mr. STORRS. Yes; I meant to correct that later on. Instead of being a per capita tax it was \$1,000 of assessed valuation.

Mr. WARREN. And that was in this special report of the public-service commission this last year?

Mr. STORRS. Yes. I assume that report will be at your service anyway.

Commissioner MEEKER. Could you put those figures on a comparable basis? The figures regarding the tax necessary to keep up the highways is on a per capita basis, and it would be more useful for me if you had the other figures on the same basis.

Mr. STORRS. I can easily do that. We could easily determine from these figures that amount. The statistician could easily determine it and file it here as a part of the record.

Mr. WARREN. I do not think it would vary very much as between the per capita and per \$1,000 of valuation.

Mr. STORRS. No.

Mr. WARREN. I notice the assessed value of the Berkshire County district is \$104,000,000; and I think the population is about 8,000, is it not?

Mr. STORRS. Yes. There would be very little difference, as I have it in mind at the time, but it can be easily done.

Mr. WARREN. There was testimony last week—I do not think you were here last week—

Mr. STORRS. No.

Mr. WARREN. From various street-railway representatives to the effect that increasing the rates produced a substantial increase in revenue, as bearing on the point whether it was possible to get increased revenue by increase in rates. Have you had experience in increasing rates on any of your lines?

Mr. STORRS. I have. In Connecticut we are on a 6-cent basis, having been taking 6 cents since October, 1917. The first 12-month period after that was the time during which we were in the war, and all industries throughout Connecticut were most intensely engaged in the production of the essentials of war. With the taking out of the population the younger men for serious war duties on this side and also abroad and also the young women for loyal work who did not need the income, to relieve men for other more serious places in the industries and offices, the result was a very great dropping off in the use of the electric-railway car. The additional carrying of operatives to and from the plants in which they were engaged did not nearly compensate for the loss of riding during the normal hours of the day and during the pleasure-riding hours of the day, the evening. The result was that for the first year after the installation of the 6-cent fare our revenue was practically identical, that is, there was an increase of 0.9 of 1 per cent in the gross revenue.

That could not, of course, be entirely attributed to the increase in the rate of fare, and it would be impossible to determine what portion of that loss in passenger riding should be attributed to the increase of rate of fare.

Mr. WARREN. What period was that?

Mr. STORRS. October 1, 1917, to October 1, 1918.

Mr. WARREN. Do you happen to know from the returns of other companies in New England which were operating at the old rates during that same period whether or not there was a large loss of traffic on those companies?

Mr. STORRS. I will amplify that a little bit in connection with the Connecticut Co. We made a very careful survey of that and came to the definite conclusion that we had lost 10 per cent of the increase; that is, that the increase from 5 to 6 cents resulted in a decrease of 10 per cent in revenue; that, had we remained on the 5-cent basis during those serious days of 1917 and 1918, we would have lost 10 per cent of our revenue. And we were borne out by some of the records of other electric railways who, during that time, went from 5 to 6 cents, practically a 10 per cent increase in the rate of fare.

The most effective increase is a decrease in the service offered, effective in the increase of gross revenue, decreasing the area for which the 5-cent coin will buy transportation.

Mr. WARREN. How has the increase operated since the termination of the war?

Mr. STORRS. With the reversion to more normal conditions throughout New England and throughout those dense industrial communities, there has been, of course, a very great increase in revenue; that is, a comparatively great increase, not large enough to offset the increase in cost of operation, but an increase over the 1918 figures, which is readily to be seen. People are back to a more normal basis and the relief from the strain of war-time conditions has brought back a desire for pleasure riding in the off-peak hours of the day and during the evening.

The CHAIRMAN. Have you the per cent of increase?

Mr. STORRS. It would run—starting about April, it has been running at an average of 14 per cent since April, mid-April that was, Mr. Chairman.

Mr. WARREN. So, from your experience, have you any doubt about the efficacy of rates to produce an increase in revenue?

Mr. STORRS. I have a very grave doubt as to any ability on the part of the utility to estimate within any kind of reason what the result of an increase in rate might be upon the gross revenue. And, of course, there is a point with the increase above 6 cents at which you will have a declining gross revenue. An increase to 7, 8, or 10 cents would result in a declining gross.

Mr. WARREN. On some lines.

Mr. STORRS. On some lines, at least. There is a very great uncertainty.

Mr. WARREN. Now, have you made an investigation and are you prepared to express to the commission some views on the effect of extension of lines and complying with various requests of the communities for additional service?

Mr. STORRS. Yes.

Mr. WARREN. Can you go on with that, without my questioning you?

Mr. STORRS. In this case it is rather hard to treat it in a broad way, and I may divert occasionally to the particular instance.

In the early days of the electric-railway industry the optimism of the promoter and the willingness of the investor to be convinced led to a very great expansion, primarily due to the fact that the electric service could be performed at so much greater speed than the old horse-car service. The electric car could cover in 15 minutes practically three times the distance that the horse-car could. After it was considered desirable to develop this speed to the maximum of lines to be served, the lines were extended out to the outlying edges of the cities and towns and even out in the rural and suburban communities—all of it to the advantage to the communities served and the patrons of the line—and it was always at a fixed rate of fare, during the horse-car days—a 6 and 7-cent fare, possibly, ultimately reverting to the standard nickel.

One little line of New England of interest in a small village was a stage running from the railroad station up into the village, as so many of these villages were founded away back from what was ultimately the line of transportation, or on the line of transportation of those days, the stage; and when the steam railroads came through the lines of transportation changed. The stage was operating from this small station to the little rural community, an attractive little New England village. Some mill owner who had made a lot of money up there perhaps thought it would be a good idea to put a horse-car line, and he put in a horse-car line $2\frac{1}{2}$ miles long.

It was very profitable and ran along. The car ran on rails instead of the stage on the road. It was a typical old corduroy road. If a man had a house a little bit beyond the center of the town, distant from the railroad station, he thought it would be a good idea to extend it out there, and he extended it out there. A mile or two beyond that was a cemetery and lots of people wanted to go out to the cemetery, and they extended it out there. A little beyond that was a waterworks plant, and ultimately they extended it out there because a few people worked out there and they wanted to ride. In the meantime, it had been developed from the horse-car to the trolley car. There was a beautiful hill a little farther away with a lot of chestnut trees on the side, and a lot of people wanted to go out there; and so they built a line out there to accommodate the people who wanted to go out to gather the chestnuts. We became responsible for that line.

The CHAIRMAN. Were these extensions voluntary?

Mr. STORRS. Some of them were at the request of the community and some of them were voluntary. Most of them were at the urgent request of the community. I am not sure but what the chairman of the board of selectmen had some interest in the chestnut grove and wanted to get the people out there to see it.

The result has been that during the last year that line with only one car, a single-truck car, took in \$2,000, and it cost \$8,000 to operate the car, that is, out-of-pocket cost; I do not mean to say the depreciation and fixed charges, but the actual dollars of outgo to pay for the construction and the maintenance, to maintain that indi-

vidual car, together with the actual cost of the power, the power at that point being brought on the kilowatt basis.

This was frequently the case throughout the communities, a gradual development of inconsistent demands. Of course, it has been rather inconsistent or rather inconceivable that the owners of the utility would seriously oppose the insistent demand of the community, which itself gave the franchises essential to the life of the corporation, and where that became a serious pressure frequently it was granted.

Commissioner MEEKER. In the end do you think that such extension should be passed upon by a State commission rather than by local authority?

Mr. STORRS. Those in New England are passed upon so. And in connection with that there is now unanswered an order of the public-utilities commission in one of the New England States directing the electric railway to build an extension, in this case only about 4 miles long, to serve a little community, that community having a double-track line between the center and the large city adjacent, but the town hall happened to be in one part of the community and a large part of the inhabitants in that village off from the main line of transportation, and the people wanting to attend town meetings had to take the trolley into the center some 4 miles and back out to the town hall some 6 miles. The people in that community, rather important politically and otherwise, pressed successfully their case before the commission, and an order was issued directing the electric railroad to build a line something between 3 and 4 miles, as I recall, to connect that little portion of the isolated community with the town hall. That is practically what it was, the larger portion of the community having already a double-track line and practically two connecting with the main civic center. There was a case in which the commission itself had ruled upon it, and, needless to say, the corporation has not been able to obey the order of the commission.

The CHAIRMAN. That is the street-railway corporation?

Mr. STORRS. The street-railway corporation has not been able to do it. The authority was issued two or three years ago; and we came upon the rocks at about that time and have not been able to finance orders of that sort, and the commission itself has not pressed its demands to the court nor has the community pressed its demands to the court and through mandamus forced the company into the construction of the line.

Commissioner WEHLE. Is that in Connecticut?

Mr. STORRS. Yes; adjacent to New Haven.

The CHAIRMAN. Have you taken any steps to abandon that track which cost \$8,000 to operate with \$2,000 revenue?

Mr. STORRS. We have now a little publicity going forward to an immediate cessation of service on that line.

The CHAIRMAN. So there is a remedy for the company?

Mr. STORRS. There is. What the local remedy is we do not know, but the practical remedy must be that.

Commissioner WEHLE. What is the name of that point?

Mr. STORRS. That is up to Westport, from the railroad station below Saugatuck. You will recognize that going up above Westport and on up to the waterworks.

Mr. WARREN. I suppose that cost of \$8,000 is a good deal more than the cost was?

Mr. STORRS. Decidedly more than the cost was in horse-car days.

Mr. WARREN. Yes; or in the early electric days.

Mr. STORRS. Yes. A little tabulation which might be of interest in connection with that as showing the difference between the communities in this country and in the old world, where the fundamental theory of the electric railroad has been so different—the theory being over there that the electric railway must serve the densely settled part of the community; it was established for that purpose, and that any line built must be a line which would produce transportation which would serve to pay for the investment.

If I may, I will read a little bit here. Figures have been prepared and a great deal of publicity given it in the past showing that had the utility in this country developed along the line of the same utility in European countries or in England, the city of Columbus, Ohio, if it had the same facilities as Glasgow, Scotland, would have attained but about 15 per cent of its present area. Or the city of Bridgeport, Conn., would have less than one-fourth of the street-railway trackage which it actually has if it had the facilities of Aberdeen, Scotland, cities of the same type and character.

Commissioner WEHLE. What facilities?

Mr. STORRS. The lines of track, I had in mind in that case.

Commissioner WEHLE. Have you in mind the system of charging fares when you speak of the facilities?

Mr. STORRS. No; only the physical facilities.

As showing the difference in the facilities afforded to American and European cities by electric railways, the following tabulation of statistics for cities in Great Britain having a total population of 965,000 and cities in New England having a total population of 1,085,000, the same number of cities in both cases, and practically the same population, shows:

Item.	Great Britain.	New England.
Population.....	965,000	1,085,000
Miles of track.....	158	695
Population per mile of track.....	6,187	1,560
Revenue per mile of track.....	\$16,767	\$13,314

The most significant part of that comparison is the fact of the population per mile of track. It is a picture of the whole British tramway conditions, slender accommodations, dense congestion, slow service, low fares, and high earnings per mile.

Commissioner WEHLE. Have there been any developments in inter-urban business in Great Britain?

Mr. STORRS. Relatively small, I think. I am not qualified to testify.

Commissioner WEHLE. The interurban business in this country where the general communities are fairly closely united together has grown considerably, has it not?

Mr. STORRS. It has been very largely overdeveloped.

Commissioner WEHLE. It has been overdeveloped?

Mr. STORRS. In this country, you are speaking of?

Commissioner WEHLE. Yes.

Mr. STORRS. Yes; that is, throughout the densely settled portions of the community, throughout New England and portions of New York State.

Commissioner WEHLE. Taking the railway system in Illinois—would you say that was an overdeveloped interurban system?

Mr. STORRS. I am hardly competent to testify.

Commissioner WEHLE. How about Indiana and Ohio? Would you say those are overdeveloped?

Mr. STORRS. I do not know as to that either. My detailed experience is in connection with New England properties, although I have been over some of these other lines, of course, but I am not familiar with their revenues and finances generally.

Commissioner WEHLE. I mention this at this point simply because I think that we may find that the interurban development which would have to be taken into consideration in connection with the comparison in population per mile, as it has occurred in this country, might from an earning point of view affect considerably the sparse business in the cities themselves.

Mr. STORRS. For that reason I took New England, where the development there, as you know, is between the small village and small town into a larger city where they are relatively dense and nearer together, and there I think those figures would be more comparable than they would in any other portion of our country.

Commissioner WEHLE. And the English have nothing, as I understand, to compare with that sort of development.

Mr. STORRS. No; that is true. And I was trying to bring out that very point, that had we not developed beyond the area of dense population, we would have not reached the difficulties we have, but it was in the effort to serve the large community interest rather than the local civic interest that we have come upon these rocks, and that by a system of abandonment of lines and discontinuance of service we can find that measure of supplying the pedestrians which we can meet.

Mr. WEHLE. The point is that the electric-railway systems in New England by reason of their initiative have contributed a real social service to the cities by preventing congestion?

Mr. STORRS. Yes. Take a great many small country communities. They are made up entirely of operatives in the mills in the larger cities and they are given that opportunity for a free life and the owning of little homes and going out into the country which would not have been possible if there had been no transportation facility of this kind.

Commissioner WEHLE. Has there been any indication that popular sentiment would permit of the discontinuance of the service?

Mr. STORRS. I am afraid it is a question of necessity rather than popular sentiment when we get down to the point of income and outgo not meeting.

Commissioner WEHLE. Has the legal question been tested in New England as to whether there can be a discontinuance of the service?

Mr. STORRS. Only in the case perhaps of a receivership has it been questioned.

Mr. WARREN. How has it resulted?

Mr. STORRS. That the utility could be abandoned.

Mr. WARREN. The same as in Massachusetts?

Mr. STORRS. The same as in Massachusetts.

Commissioner WEHLE. Would you be willing to put the case in the record for reference?

Mr. STORRS. The case of a receiver of the Danbury & Bethel Street Railway? I can not give you the citation, but it can be readily found.

Commissioner WEHLE. Will you do that, Mr. Warren?

Mr. WARREN. I have not it here.

Mr. STORRS. I will ask the receiver to let you have a copy of it. He can send the citation to you readily.

Commissioner WEHLE. What is your idea as to the remedy that could be found if, as you say, a decline in gross revenue is apt to follow any increase in fare beyond 6 cents and if, as you further say, even an increase beyond 6 cents might not produce a sufficient revenue to make the industry self-supporting?

Mr. STORRS. A recognition on the part of the communities served of the essential need for transportation, if that need is as it is to-day throughout the sparsely settled districts, and a continuance of that, we will say, with community assistance.

The CHAIRMAN. You may proceed with your statement.

Mr. STORRS. There is no question but what the development of these lines through the rural districts has been to the welfare of the State as a whole. It has made it possible for the small villages to keep in touch with the larger cities and towns, and it is doubtful if those towns now served would care to go back to the days before trolleys.

It has been possible for the cities to develop rapidly because the street railways have been built in the suburban territory and in many cases have preceded the coming of the householder. Were it not for this development the growth of industry, business, and commerce in large cities would have been much slower. Everybody knows that in days gone by the development of a suburban real-estate tract quickly followed the construction of a trolley line. These railways have also made possible the location of industrial plants at advantageous sites remote from the city proper. The new construction created as a result of trolley lines being built to the outskirts of large cities and towns has a value of many millions of dollars, the taxes on which have made possible the improvement of the cities and towns themselves. The investors in electric railways built these lines in the hope that eventually there would be a fair return upon their investment. It was the investment in these lines that created in a large measure the increased valuation of the cities and towns. Therefore, should there be a reduction in service or a further destruction of incentive to invest in electric-railway securities, there would naturally follow a slackening of community and industrial development.

Without question, unless a resolution is found whereby the integrity of the electric lines can be assured, mile upon mile of unprofitable extensions will have to be abandoned with a resulting loss to the communities in declining real estate values and general destruction of the existing social conditions which have been based upon this convenient method of intercourse.

Shall I go forward? Are there any other points, Mr. Warren?

Mr. WARREN. Is there anything further you have to offer?

Mr. STORRS. The question is also presented in connection with the transfers which are now given so generally and freely by the electric railways without any recognition of the value which is given by that transportation service. Developed originally in all the cities of any size there were a number of independent electric-railway corporations serving the community as a whole, without any interchange whatever of service or exchange of patrons. These properties were gradually consolidated and, in the process, there was either imposed upon the electric railway, or there was offered as a sop for favor of the consolidation, a larger extended area for one fare coming through the transfer. That has developed now until—there is a case in point as being the most extreme case of which we know and perhaps also the most absurd case, which was at the time ex-President Brush, of the Boston Elevated, gave a man a 5-cent piece and told him to go out and ride as far as he could. I will have to refer to the figure to get the exact distance, but I think he rode 54 miles before he had exhausted the possible extent of the 5-cent fare and stopped then, not because the 5 cents was exhausted but because he was exhausted. That is a very extreme and absurd case, but it is noted throughout all the country that more transportation is given for the original fare, whatever that may be, than the utility can afford to supply.

They come into the center of the city from one end; that line may be 5 or 6 or 7 miles long; they transfer freely to another line going out 5 or 6 or 7 miles to the other side of the city.

That has gradually come up with the extension of the lines, the 5 cents for the unit fare covering the entire city and has been a free gift originally, and a part of the franchise ultimately, in very many cases, but a right of the community without question in the minds of the individuals of that community; but it is always at an additional cost to the utility in the additional accident hazard by carrying more units of passengers on and off the cars and also by reason of an additional cost necessitated to take care of the additional riding and supplying additional passenger carrying capacity to take care of those transferred passengers.

Another reason for the installation of the transfer was originally the desire on the part of the utility to economize by not running through-route cars from one side of the center of the city to another or by changing that route, and in order to placate the public a transfer was given between the two new routes obtained by the change in routing the cars.

The additional value given by the utility to its patrons is nowhere more exemplified than in connection with the construction of the property to-day as compared with the construction of the property in the early days of the horse car, and since the early days of electrification.

We have made a very careful study—we have a great many throughout New England; practically on the great portion of those lines, the fundamental basis was the electrification of the horse-car lines—and we have drawn out some interesting figures in connection with that. The old horse car, in the first place, cost from \$800 to \$1,000. It was heated by straw and, as someone has so well put it, the animal heat of passengers, lighted by kerosene, and propelled by a horse at a pace not much faster than a walk. It was hardly

more than a good-sized box on four wheels. The first electric cars cost about \$4,000, some heated by stoves and some by electricity. They were not as large nor as convenient as the public ultimately or gradually demanded, so that there has come about an evolution in the equipment of electric railways; and to-day the people are not satisfied with anything less than the very finest product of the car-builder's art. The difference between the first electric cars and the modern street-railway car, costing \$17,000, is indicative of the increased value of the service given to the public.

Of course, attendant with the increase in the size and weight of cars has come a corresponding increase in the track construction. In the old horse-car track carrying the light car, all that was necessary was a strip of steel on a wooden stringer and the stringers held together at occasional intervals and costing approximately \$10,000 per mile of city street. We have come through the development to the first electric railway rail of 48 pounds per yard, with occasional ties, to rail to-day weighting from 91 to 125 pounds per yard and ties more frequently spaced than on any steam railroad and rail as heavy as the best steam railroads and heavier than 90 per cent of the steam railroads of the United States.

Starting out with the horse-car days there was a demand and necessity for paving the streets between the rails, and gradually we worked into the high-type paving of to-day, which requires a still further cost of concrete base for the rail for the ties and a thoroughly ballasted roadbed; all of it, the whole development, from the track costing originally \$10,000 per mile to a track costing to-day \$85,000 per mile, both being miles of single track, entirely for the benefit of the public; an additional service rendered and additional facilities offered; but the return to the individual is in dollars and cents the same figure. Of course, to the corporation, in figures of value, it is practically half.

Along with that development which I have indicated was the impost laid upon the electric railway for paving the street; perhaps logical in its original imposition by reason of the fact that the horses used for propelling the cars did destroy the pavement. But to-day this creates an attack upon the revenue of the company which, of course, must be passed on to the car rider, whereby competitive service may be profitably operated as well as rendering it more attractive for the private automobile, thus passing the burden from the resident who can afford his own private means of transportation to the one who has not sufficient income and must utilize the trolley.

It also works a hardship on the rural territory, for under the present method of fare regulation this large annual burden must be borne equally by all the patrons of the company and, of course, only a very small amount of this expenditure benefits the country territory, as a very small portion of the expense for paving and street betterment is spent in the rural areas.

Furthermore, under the present situation, this large annual contribution, estimated to amount to approximately \$16,000,000, made by the electric railways is actually made for the benefit of the residents and users of those particular streets through which tracks are located, thus reducing the cost of municipal betterments to one group of inhabitants, while others are charged the full cost of such betterments.

Of course, the railways feel that it is a perfectly proper charge, if they destroy the pavement—the same as any other utility in the use of the street—to have that replaced and put in repair; but the idea of passing on a burden amounting to such large figures—in Connecticut alone in the last eight years our properties, representing 85 per cent of the track of the State, has expended solely for pavement over \$2,000,000, and it is of record that in Portland, Oreg., in the valuation of the public-utility commission they found an actual expenditure by the public utility in Portland, Oreg., of \$2,000,000; and we have been spending right along in Connecticut at a rate of \$310,000 a year solely for the permanent pavement. To which must be added a very large expenditure to prepare the rails for pavement laying, the older rail of the standard types running up as high as even 80 pounds per yard—and a very good rail, but which was a low rail, and the change in the type of pavement required the use of a higher rail in order to accommodate the concrete base and the concrete subbase and wood-block surface cover; and we have had to put in rails up to 91 pounds per yard and destroy physical value of the rails and the roadway which had, at least in many instances, 10 or 15 years more life, and in practically all instances 5 or 6 years more life. It had to be done in order to accommodate the requirement for pavement on the part of the public. That item alone, in connection with one which has been running—but not at the present time because there is no revenue to supply it, but the demands are there just the same, and in the past they have been met—totals a cost of over half a million dollars a year for the one item of pavement and the incidental betterment of the roadway necessitated by that pavement. That is just in one small community, to bring it down to a concrete case.

The trolley car is the only user of the street that does not destroy the pavement. The automobile, the large truck, the horse and wagon, even the motorcycle it is conceivable might possibly damage it, but the trolley car is the only one that does not destroy the surface of the street. In fact, it takes off from that surface a large amount of what otherwise might be vehicular traffic; and yet it is the only utility, the only individual, that is charged for that betterment. It is probably logical, because the easiest thing to do is to soak the utility.

Another impost is that of the requirement for bridges, and with the gradual development and civic betterment and improvement, a new and more ornamental bridge is frequently required, or with the gradual increase in the vehicular use of the highway, particularly the use by trucks carrying as high as 25,000 pounds at times, a new bridge over a large waterway is required. That is recognized in various cities by varying imposts upon the utility, because it happened to be the easiest thing to reach out and pass the burden of the public onto, in the minds of the average legislator. Of course, that burden is not passed on; it ultimately rests on the taxpayer and the individual user of the utility, but it was a popular thing to pass it on. It worked out in some cases to an imposition of over one-third of the total cost. Right here let me say, where the utilities are recognized in their mutuality of relation between the community served and the utility, these imposts are not made on the utility; they are, rather, made entirely from the tax.

Now in Connecticut, reverting again to the case of my particular property, there are many large bridges spanning navigable streams. Some of those were built years ago when the farmers' wagons and the drays were the only known means of carrying heavy loads and the electric-railway service given was in light-weight cars. The electric railway was ordered or directed, in case of a change of equipment or in use of that highway bridge over which it was given a right to operate—if by reason of its own service it increased the demands upon that bridge and rendered necessary an increase in construction from the standpoint of safety, the electric railway must care for that increase. There was also some little suggestion as to the necessity to pay for the additional cost occasioned by widening if widening were necessary.

Discussions came up from time to time as to how much of a contribution was necessary from the standpoint of the electric railway for the increased strength of the bridge or the increased widening, becoming almost vitriolic at times. It resulted in an appeal to the legislature by a single community in which there was involved at that time a small-bridge construction and ultimately the enacting of a statute by the State requiring the payment by the electric railroads of one-third of the total cost of all bridges where built between towns of 10,000 population, the extreme usually being the town line; another third being assessed against the towns and another third against the State.

There happens to be one bridge in Connecticut at the present time which is perfectly good from the standpoint of strength but which is not architecturally or structurally beautiful. It is across a beautiful stream and is very largely used by the automobile visitors from foreign states and by the trucks of New England industries rushing goods down to the New York market. That bridge is now being contracted for reconstruction and the contract is in the neighborhood of \$900,000 and its cost will probably be about \$1,200,000. The utility will be required under the State law to pay \$400,000. On the basis of a 6-cent fare, that is over 6,000,000 passengers—the total contribution by 6,000,000 passengers. We carry over that area in the neighborhood of 1,000,000 to 1,250,000 per year. There is not enough profit on the million and a quarter to pay the carrying charges on the \$400,000 spent on the bridge, and it is absolutely of no value to the corporation and is absolutely no improved service to the community. It is merely because the community and the State need the bridge and some one happened to pass on to the poor utility a payment of one-third of the total cost of construction.

Mr. WARREN. Have you anything more, Mr. Storrs?

Mr. STORRS. I would like to emphasize, if I may, this point, the one phase of the combination of competition and imposts which is so hard upon us, and that is that of the motor truck. I think we will all acknowledge that the one thing that wears out the city pavement most is the highly developed motor truck. I happen to recall now, passing in front of my house, which is on one of the principal city streets leading through the city of New Haven, frequent fleets of trucks which pass by there, going at as high a rate of speed as they can and escape on, and at nighttime, unfortunately, there are no traffic policemen out there to stop them. The result is that the pave-

ment through there is being torn up. The wooden blocks are being torn out of the pavement. When it rains, the wooden blocks are soaked out of the pavement by these trucks, and, unfortunately, the poor electric-railway company has paid for 19 feet out of a total of 40 feet of the pavement.

Mr. WARREN. The street-railway company has paid for 19 out of a total of 40 feet of the pavement?

Mr. STORRS. Yes, sir; and that is true throughout the country, wherever the right of way has been given to that competitor. Of course, in this case, a long-distance motor truck would not be a particular competitor. The right of way has been provided very largely at the expense of the riders on the cars, and that is being torn up and destroyed by a form of transportation that pays nothing whatever toward the maintenance and upkeep of that highway. I can not think of anything more particularly, Mr. Warren.

Mr. WARREN. I would like to ask you one question, Mr. Storrs. You spoke of the annual expenditure over the country of something like \$200,000,000 on highways largely for the improved operation of automobiles. Have you in mind, and can you tell the commission what the aggregate amount paid by automobiles in registration fees is?

Mr. STORRS. I have that in figures. This is a tabulation that I overlooked, but I meant to get it in in connection with my testimony as to the automobile portion of it. I have the tabulation, if I may put it into the record.

The CHAIRMAN. Very well.

The tabulation referred to is as follows:

Comparison of automobile and of electric-railway industry as of 1918.

	Automobile.	Electric railway.
Total number of cars.....	6,146,617	192,379
Number of passenger cars.....	5,352,350	83,883
Capital investment.....	¹ \$1,297,000,000	\$5,356,304,610
Number passengers carried per year.....	² 3,000,000,000	14,243,415,830
Passenger miles.....	³ 45,000,000,000	42,730,247,490
Seating capacity of all passenger cars.....	25,900,000	2,985,905
Number of employees.....	830,000	293,392
Gross revenue from license or taxes.....	\$51,477,416	\$49,496,334
Cost of maintenance of way and structures.....		⁴ 48,706,330
Amount for paving and other imposts.....		16,065,000

¹ Exclusive of cars.

² Based on two passengers per car.

³ Based on three passengers per car and 3,000 miles per year.

⁴ Estimated as same percentage of total cost of way and structures as in 1917, using 1918 estimate based on 115 companies, American Electric Railway Association.

Mr. STORRS. That tabulation shows the total number of cars and the investment. The taxes received from the automobiles were \$51,000,000.

Mr. WARREN. That is all that comes in as against the \$200,000,000?

Mr. STORRS. The \$256,000,000 put in by States and communities as a whole for that pavement.

Commissioner MEEKER. Just what does that \$256,000,000 represent? Does it represent new construction?

Mr. STORRS. And renewals, so I understand. That was obtained from the statistical department of the Bureau of Census.

Mr. WARREN. Do you happen to know the mileage of the tracks?

Mr. STORRS. I have not that.

Mr. WARREN. Did you not have that in your statement?

Mr. STORRS. Well, the statement that I had there was the total.

Mr. WARREN. As between Columbus and Glasgow?

Mr. STORRS. I am not at all sure that I had that in the statement, and, unfortunately, that statement is not here just at the present moment. I have an extra copy of it, and I will look at it. [After referring to papers.] No; I do not have that mileage. My comparison as to mileage is entirely between the six large cities, as totals.

Mr. WARREN. Yes.

Mr. STORRS. I can easily supply that figure, if necessary.

Mr. WARREN. These imposts which you have described, such as paving, bridges, street widening, street cleaning, and other requirements of that sort through the street railways on the car riders, really all analyze down, do they not, to a question of the expediency of relieving the general taxpayer through an indirect tax upon the car rider?

Mr. STORRS. Absolutely; there is no question about that. That has to be recognized either in an increasing rate of fare or a decreasing facility, or deteriorating facility.

Mr. WARREN. And while the street railway was supposedly prosperous, it seemed an easy way to increase municipal revenue?

Mr. STORRS. Yes, sir.

Mr. WARREN. But now it becomes a very acute question as to whether the people who have the property shall pay for these various burdens, or whether the people whose interests force them to ride on the street-cars shall pay?

Mr. STORRS. Yes, sir.

Mr. WARREN. That is all there is to the question, is it not?

Mr. STORRS. Absolutely, as far as those imposts are concerned.

Mr. WARREN. That is all I want to ask Mr. Storrs, gentlemen.

Commissioner MEEKER. Mr. Storrs, it is true, is it not, that the street railways do wear out the surface of the street, to a limited extent, next to the rail?

Mr. STORRS. Next to the rail for a distance of 5 or 6 inches.

Commissioner MEEKER. Would you advocate the exempting of the street railways entirely from any charge for paving the streets because of the insignificance of the area that the street-railway traffic actually affects?

Mr. STORRS. I think not, particularly on that basis, but upon the theory that communities are giving to other means of transportation a thoroughly improved highway, and they certainly should be willing to take up the relatively insignificant burden that that might be, but which is a very large burden, of course, in the total paving costs.

Commissioner MEEKER. I take it that you advocate the regulation of the jitney and the motor-truck traffic and control of such traffic by the public, in order to put those services on the same footing as the services rendered by the street-railway companies?

Mr. STORRS. Absolutely. It seems to me essential from the standpoint of the communities and the Commonwealths in the large communities to have that character of transportation thoroughly regulated, the same as the other means of transportation are regulated.

Commissioner MEEKER. And if those means of traffic are able to beat the street railways out, if they were all subjected to the same regulation, the same measure of control, then the street-railway companies would have to take a licking; but it is wholly unfair, I gather from your testimony, to have these services rendered on an unfair basis.

Mr. STORRS. Yes, sir.

Commissioner MEEKER. Which is really service rendered to the public at less than cost?

Mr. STORRS. Without doubt.

Commissioner MEEKER. And at the expense of the established service rendered by the street-railway companies?

Mr. STORRS. The communities and the States have invited investors to come in and provide the essential transportation need of the communities and have in the past guaranteed, through their statutes, a transportation monopoly. In this case, this other public utility would come in; and for the community and the Commonwealth to allow unregulated competition is inconceivable. It should not be allowed to go on.

Commissioner MEEKER. May I ask you a hypothetical question there? If, however, some improved means of transportation of traffic shall be hit upon in the future, you would not urge the monopolistic character of the charters granted for the protection of the street-railway companies?

Mr. STORRS. I think that is so largely a hypothetical question that it is easy to answer. I can not see that it would be possible. The originally chartered companies have gone through a very great development by a change in the art, and it is inconceivable, at least to my mind, that a further change will come in the transportation field without the experts and those interested in the present utility availing of the change.

Commissioner MEEKER. So many wonderful things have happened, even in my lifetime, that I do not like to predict the impossibility of anything. I just want to get your views on the subject. I think I have stated your views correctly, have I not, that all you want is the same measure and kind of regulation and control over jitney and motor-truck traffic that is exercised over street railways and public utilities, and then they can fight it out?

Mr. STORRS. Absolutely.

Commissioner MEEKER. And possibly in some lines the jitneys and motor buses and motor trucks will remain, even under those conditions?

Mr. STORRS. That is absolutely all that the utility is asking at the present time, so far as I understand it.

Commissioner MEEKER. Now, you gave us some very interesting facts regarding the developments and extensions. Do you think it would be advisable because of the public service rendered by street-railway companies in distributing population over wider areas, relieving the congestion, or preventing congestion, if you please, do you think it would be advisable to maintain services that were not paying for the services at the expense of general taxation?

Mr. STORRS. Without question, in my mind, it would be very desirable. There are certain specific cases in which that is now being done in Massachusetts. On one of our own properties we aban-

done entirely some 5 miles of trackage, and we discontinued the service on 21 miles more and proposed the discontinuance of service on 9 miles farther. In that case, the communities served came forward with a sufficient annual fund to meet the actual cost of operation of that line, giving us all the revenues.

Commissioner MEEKER. Well, is it a foregone conclusion that the 9 miles which you propose to abandon could not be put upon a paying basis if you were given sufficient elasticity of fares?

Mr. STORRS. Well, I think it was in that case, because it was a very sparsely settled community, and the costs were going up so rapidly that it would be almost impossible to get enough people to travel to meet the costs of to-day. The costs of years ago were a different matter, at the time that they built.

Commissioner MEEKER. Did the community pass judgment upon this, or did the State public-utility commission pass upon it?

Mr. STORRS. The appropriation was voted on in open town meeting, largely called for that purpose.

Commissioner MEEKER. And the deficit was made up out of taxation in the community affected?

Mr. STORRS. Yes, sir.

Commissioner MEEKER. Is it the thought of the people of the community that they are going to grow big enough so that eventually the street-car riders will pay for the service?

Mr. STORRS. They temporized with that question and made the vote only for one year. What the next year will show will be perhaps going over it again. I don't know.

Commissioner MEEKER. There is just one further question that I want to ask: With reference to the amount of the automobile license fees and the amount expended on building new roads and the upkeep of the roads built, of course, those roads are not built entirely for the automobile owners, and they are not worn out entirely by automobiles. What is the amount in license fees collected annually?

Mr. STORRS. \$56,000,000, I think, was the figure.

Commissioner MEEKER. Does that represent only the revenue that the public collects from the automobiles?

Mr. STORRS. I understand that is it. This tabulation of statistics was obtained from various motor vehicle associations throughout the country.

Commissioner MEEKER. But that would not include the personal-property tax?

Mr. STORRS. No; I understand that. This is license fees.

Commissioner MEEKER. I wonder if you should not give to the commission your best estimate of the total revenue paid by automobiles. As long as the question has come up, it would seem to me that that would be the fair way of presenting the facts.

Mr. STORRS. This was prepared by our statistical department, and I would have to find out. I would perhaps have to amplify that.

Commissioner MEEKER. If you asked my personal opinion, I would not attach very much importance to those figures. That is all, Mr. Storrs.

Mr. WARREN. Mr. Storrs, in the matter of that track which the community made a contribution to support, had not the matter been before the Public Service Commission of Massachusetts?

Mr. STORRS. Yes; the matter had been before that commission. The question of the discontinuance of the service over this portion of 9 miles of track had been before the Public Service Commission of Massachusetts, and they directed the communities and the public utility to get together, if possible, on the basis of seeing whether the communities required transportation to an extent sufficient to make an appropriation.

Mr. WARREN. And that they did, instead of passing on the abandonment formally?

Mr. STORRS. Instead of passing on the abandonment formally. The petition for abandonment was then pending before the public-service commission.

Mr. WARREN. You spoke of the car cost being \$17,000, with full equipment. I think the testimony of Mr. Heulings, of the Brill Co., on Friday, was something like \$10,000 a car.

Mr. STORRS. In connection with that, I am giving the figures that we paid the Brill Co. for some cars recently purchased. They were purchased during war days, the delivery having just been completed, but the orders were placed in August, a year ago, 1918, for those cars, complete with all the equipment, \$17,000.

Commissioner GADSDEN. Did not Mr. Heuling give the price of a specific car to show the difference between the prewar prices and the ordinary prices? He did not claim that that was the highest price of a car.

Mr. WARREN. No; but I just wanted to bring out the explanation of it.

Mr. STORRS. Yes.

Mr. WARREN. You think then, Mr. Storrs, that the question of convenience and necessity of the extension of the street railways should be passed upon by the State commission, if there is one?

Mr. STORRS. Oh, absolutely.

Mr. WARREN. You believe also in connection with that, that it should pass upon the question of whether it should be self-sustaining, if built?

Mr. STORRS. There is no question about it.

Mr. WARREN. That is all.

Commissioner SWEET. How is the State Commission of Connecticut appointed?

Mr. STORRS. It is appointed by the governor, sir.

Commissioner SWEET. How many members are there?

Mr. STORRS. Three.

Commissioner SWEET. Is there any politics in it?

Mr. STORRS. Not that I know of. It is extremely clear from anything of that sort. There never was any accusation of such.

Commissioner SWEET. What authority is given to the State commission in Connecticut now?

Mr. STORRS. Very broad powers in connection with the method and manner of the construction of the property, the service to be rendered, and the reasonableness of the rates of fare which have been established.

Commissioner SWEET. Do you think this subject can be referred to State commissions, or should be referred to State commissions rather than to municipalities?

Mr. STORRS. Without question, sir.

Commissioner SWEET. If your figures are correct—and I have no reason to doubt their correctness—you have made out a very strong case tending to show that present conditions are wrong in many respects and need readjustment, have you not?

Mr. STORRS. I hope so.

Commissioner SWEET. The basis upon which we are now proceeding with regard to transportation such as we are discussing is all obsolete; that is to say, our present system was adopted when things were entirely different from what they are now, and in order to reach a proper readjustment, a great many things have to be changed; is not that so?

Mr. STORRS. Doubtlessly.

Commissioner SWEET. That would take a great deal of time, would it not?

Mr. STORRS. The change would be more particularly one in the public mind.

Commissioner SWEET. Certainly, but the public mind has to be changed before the other changes, the real changes, can be made; but that would take a great deal of time, would it not?

Mr. STORRS. Doubtlessly.

Commissioner SWEET. Would it be possible to give to the electric railways of the United States the relief demanded from the present conditions that exist within the time that would be required to make these readjustments?

Mr. STORRS. That is a rather broad problem.

Commissioner SWEET. Well, do you think it would? In your judgment, would it be possible to make these readjustments soon enough to relieve the situation?

Mr. WARREN. These fundamental readjustments, the franchises, etc.?

Commissioner SWEET. Certainly.

Mr. STORRS. Oh, it would be impossible to do that, but in the meantime, a step in advance could be taken by an assurance of the adjustment of the fundamentals which would give to the public utility an opportunity of so conducting its business within areas, by discontinuing service, by temporarily abandoning lines that are unprofitable, until the fundamental adjustments were brought about, and which might give the utility an opportunity to continue its life.

Mr. WARREN. Or by temporarily increasing the rates?

Mr. STORRS. Yes; or by increasing temporarily the rates.

Commissioner SWEET. Well, it would follow that if the readjustments that are necessary to put things on a proper basis can not be made within a reasonable time, then we must look for some temporary measures?

Mr. STORRS. Yes.

Commissioner SWEET. Now, the question that I would like to have you answer, if you feel disposed to do so, and can, is to tell the commission what temporary measures, in your judgment, ought to be adopted, pending a general readjustment in regard to the whole subject?

Mr. STORRS. That is very broad, and I would not like to pass judgment for the entire industry, Mr. Commissioner Sweet.

Commissioner SWEET. Well, is not that the problem before us?

Mr. STORRS. It is the problem that is before you; yes, sir. Without any question, relief from the imposts that are made upon the public utility, the regulation of competition to the point that we know what that competition may amount to, the granting of the right to discontinue, either temporarily or for a long time, the essentially unprofitable lines, the giving to the utility by the public of a subsidy to enable them to continue operation of those unprofitable lines, thereby bridging over the period of reconstruction, and a recognition, always, of course, going with that, by the public of the essential need of the change, and a willingness to pay the increased rates of fare—an increased rate of return, relief from imposts, regulation of competition, and the privilege of discontinuing service that is so unprofitable as to be really a nonessential service.

Commissioner SWEET. If I understand you correctly, the mere increasing of rates at the present time would not be even a temporary remedy?

Mr. STORRS. In my opinion, no.

Commissioner SWEET. In that respect, you differ from some other witnesses who have appeared before this commission.

Mr. STORRS. Well, the effect of an increase in rates in various communities is different. It differs all over the country. It so happens that in parts of Connecticut, doubtless by reason of the fact that the distances are so relatively short, there is a greater falling off in traffic than there would be at other points where the ride is, of necessity, longer and the need for the service more acute; but that has been our experience in parts, at least, of the New England territory.

Commissioner GADSDEN. You have had your increase already?

Mr. STORRS. Yes; we have had our increase already.

Commissioner GADSDEN. And you are talking about a further increase?

Mr. STORRS. I am talking about a further increase.

Commissioner GADSDEN. You are operating on at least a 6-cent fare?

Mr. STORRS. We are operating on at least a 6-cent fare.

Commissioner GADSDEN. And Commissioner Sweet has been asking you about a situation where they were still operating at 5 cents.

Mr. STORRS. Well, you have to keep on going and going and going. The 6-cent fare is not sufficient to meet the needs of the corporation.

Commissioner SWEET. My understanding of your testimony has been that the companies under your control are losing money to-day?

Mr. STORRS. Yes, sir.

Commissioner SWEET. I do not think you have put in evidence as to just exactly what that situation is regarding these companies.

Mr. STORRS. I will be very glad to do that. I will have to have some little time to get that tabulation together.

Commissioner SWEET. But, broadly speaking, are you paying operating expenses?

Mr. STORRS. Some of the companies are paying operating expenses, and some of them are not paying operating expenses.

Commissioner SWEET. Taking it as a whole, you are losing money; you are not paying operating expenses?

Mr. STORRS. Yes, sir.

Commissioner SWEET. I assumed that that is the case in the question I asked you with regard to the remedy.

Mr. STORRS. Yes.

Commissioner SWEET. Because that is substantially the case all over the United States.

Mr. STORRS. Yes, sir.

Commissioner SWEET. Undoubtedly, there are some parts of the different railway systems that pay, but that is more than offset in almost every case by other parts of the systems that are losing money?

Mr. STORRS. Yes.

Commissioner SWEET. The idea that seemed to prevail in the early days was that the community ought to get everything it could out of these public-service corporations.

Mr. STORRS. Yes.

Commissioner SWEET. And the general taxpayer seems to have consulted his own supposed interest at that time in shifting burdens to the street-railway companies and other corporations of that character, wherever they could do so.

Mr. STORRS. Yes, sir.

Commissioner SWEET. The public-service corporations, I think you will admit, used means in connection with the public that were sometimes dishonest and dishonorable, in the way of bribing, directly and indirectly, public officials, seeking to get men who were particularly favorable to their interests on common councils, boards of assessors, etc., and there was a prejudice created in the public mind against these corporations to some extent which was just. Was not that true in the old days?

Mr. STORRS. It is so rumored to be, at least.

Commissioner SWEET. When did your connection with this business commence?

Mr. STORRS. Not until 1906.

Commissioner SWEET. Have you ever seen anything of that kind since 1906?

Mr. STORRS. No, indeed; no, sir—nothing of that kind.

Commissioner SWEET. I am not asking you now to incriminate yourself.

Mr. STORRS. The days of the optimist had almost passed when I came into the business, sir.

Commissioner SWEET. Do you call those days that I have referred to as the days of the optimist?

Mr. STORRS. Well, those matters of rumor and gossip that came on down are pretty hard to trace with any particular accuracy.

Commissioner SWEET. In your mind, you have no doubt that those things did exist and that they were responsible for a portion, at least, of the prejudice in the public mind against these utilities.

Mr. STORRS. That is possible.

Commissioner SWEET. Is not that true?

Mr. STORRS. That is possible.

Commissioner SWEET. Well, is it not more than possible; is it not probable?

Mr. STORRS. In fact, it is probable. In the early days, there may have been something of that kind, but that was away back in the earliest days—away back in the ancient history.

Commissioner SWEET. But the developments of the last decade, or perhaps the last two decades—the internal-combustion engine, the automobile, the jitney, the autotruck, the motorcycle—all of these changes have revolutionized the whole situation with regard to the business performed by the electric railways; is not that true?

Mr. STORRS. Yes.

Commissioner SWEET. And the competition that they have to meet?

Mr. STORRS. Yes, of course.

Commissioner SWEET. And the justice, if there was any, in connection with the paving, their bridge repairs; and all that sort of thing, is all changed, is it not?

Mr. STORRS. Absolutely.

Commissioner SWEET. And that is the reason why a general readjustment, according to conditions as they now exist, ought to be made; is not that true?

Mr. STORRS. The imposts, with the greatly increasing costs of producing transportation.

Commissioner SWEET. Certainly.

Mr. STORRS. Labor and material costs.

Commissioner SWEET. That comes in, of course.

Mr. STORRS. Yes.

Commissioner SWEET. Have you any suggestion to make to the commission as to what benefit would be received by the roads under your control if the State commission would permit you to make a further increase in your rates of fare?

Mr. STORRS. In Connecticut, the origination of the increase in rate comes from the directors of the corporation, and the commission's control comes through a review of the rates as established by the corporation.

Commissioner SWEET. Well, the commission, of course, would really have the final report?

Mr. STORRS. They have the final review after a rate has been in effect.

Commissioner SWEET. Very well. Now, suppose further increases were made; would that materially increase the gross income of the company?

Mr. STORRS. I had felt in our company that it would not have a material effect upon our gross revenue.

Commissioner SWEET. That is because your distances are not as great, and you think the people would walk or find some other means of transportation?

Mr. STORRS. Yes. You see, the perfected highway has been developed to a very great degree throughout that portion of New England.

Commissioner SWEET. It is your thought that any further increase of rates would stimulate and bring about a greater use of the jitneys?

Mr. STORRS. Yes; decidedly.

Commissioner SWEET. So that, from that point of view, you could not expect relief unless the regulatory laws that you have spoken of, in regard to jitneys and autotrucks, perhaps, were enacted at the same time?

Mr. STORRS. Yes, sir.

Commissioner SWEET. You have mentioned the abandonment of some parts of roads that have already occurred and others that would be necessary in order to bring about a real condition of economy?

Mr. STORRS. Yes, sir.

Commissioner SWEET. What has been the effect of the abandonment you have made? Tell us a little more about that; what they have been and how they have been received and what has been the effect of them upon those who were previously using this service.

Mr. STORRS. Well, all of them, of course, naturally resulted in appeals to the commission.

Commissioner SWEET. Can you name some of the specific cases where abandonments have been made?

Mr. STORRS. Yes. In Berkshire County, Mass., the line was abandoned from Cheshire to Lanesboro, 5 miles. There are relatively few houses, and there was an alternate route that served the terminals of the line, but not the intermediate area.

Commissioner SWEET. What was this other road—electric?

Mr. STORRS. Both electric.

Commissioner SWEET. Both electric?

Mr. STORRS. We own them both.

Commissioner SWEET. Yes.

Mr. STORRS. That was abandoned and the service discontinued without any serious complaint—the line between the towns of Huntington and Lee in Berkshire. The service was discontinued last winter, with no opposition during the wintertime. In the spring a complaint was laid with the commission and a hearing held on that relative to the request of the petition for an order from the commission ordering us to resume the service. That was heard some time ago—a month and a half ago—and no order has yet been found. In connection with the other case that I have spoken of, the proposed discontinuance of 9 miles of track resulted in the suggestion by the commission that we get together, and that resulted in an appropriation being given by the town.

Commissioner SWEET. In Connecticut is the increase of a rate that might be made by a street-railway corporation effective until it has been passed upon by the public-utilities commission?

Mr. STORRS. Yes, sir.

Commissioner SWEET. While the subject is before the commission, while it is pending, which rate prevails?

Mr. STORRS. The increased rate.

Commissioner SWEET. The increased rate?

Mr. STORRS. We increased our rates on October 1, 1917, and we serve the cities of Hartford, New Haven, Waterbury, Bridgeport, Stamford, Norwalk, and all of the intermediate smaller towns. The only community that petitioned the commission for a review was that of Hartford, and it was heard in connection with the Hartford complaint—

Commissioner SWEET. If the State commission should refuse the increase, would the street railways have to refund anything?

Mr. STORRS. No.

Commissioner SWEET. To the users in the meantime?

Mr. STORRS. No, sir.

Commissioner SWEET. Do you think that the people who reside upon the portions of the roads that have been abandoned—take the

case that you just spoke of, intermediate between the terminals—have suffered materially, and have they exhibited any particular feeling on the subject—any serious feeling?

Mr. STORRS. Well, they have been seriously discommoded, and suffered more prospectively than immediately. Most of the people served throughout there are farmers—the land is farming land, and of course the value of the property has declined materially since the abandonment of that service.

Mr. WARREN. Has that line been dismantled?

Mr. STORRS. That line has been dismantled and the track taken up and taken away—completely abandoned.

Commissioner SWEET. If all of the electric railways of the United States that are not profitable, or portions of the electric lines that are not profitable, or did not pay their own expenses, should be abandoned, the result would certainly be very disastrous to a very great number of people, would it not?

Mr. STORR. It would be presumptuous, of course, on my part, to speak for the other portions of the country, but throughout New England, in general, there would be about a 30 per cent abandonment of property.

Commissioner SWEET. What percentage?

Mr. STORRS. Thirty.

Commissioner SWEET. Without going into the actual percentage throughout the country as a whole, there could not be any question but what a very large number of people would be seriously discommoded, at least?

Mr. STORRS. Very disastrously so.

Commissioner SWEET. The losses, the loss of time, the depreciation of real estate, and the general injury to the communities of the United States would be very material, beyond any doubt?

Mr. STORRS. Beyond any doubt at all.

Commissioner SWEET. Do you think that, if the people of the country were made to fully understand that abandonment would be necessary unless relief were given to the electric-railway companies, the element of personal interest would come in to an extent that would bring support to the companies and to the position that they are taking?

Mr. STORRS. I can not help but believe that that would be the fact, sir.

Commissioner SWEET. In other words, there would be an element in the community that would be militant or quite active in helping to bring about a reformation in the general situation?

Mr. STORRS. Yes, sir.

Commissioner SWEET. Then what have you to say with regard to the proper means of getting before the public the sort of education that is necessary in order that the real situation may be understood? You do not think it is now, do you?

Mr. STORRS. Far from it, but I believe that through the medium of such commissions as your honorable body we can get to the public the story so thoroughly analyzed that they can not help but believe that the conditions as they have been represented by the utilities' managers are true; and there is a growing tendency without any question, on the part of the public, to recognize these things and to recognize the conditions as they are. It seems to me it would be

but a very short time before an actual thorough knowledge of the needs can be made public.

Commissioner SWEET. You have spoken about the patrons of the railway companies, those who ride on their cars, both in the cities and in the rural districts particularly, having to pay for this paving between the tracks?

Mr. STORRS. Yes, sir.

Commissioner SWEET. And for the bridge construction and repairs?

Mr. STORRS. Yes, sir.

Commissioner SWEET. And cleaning, perhaps?

Mr. STORRS. Yes, sir.

Commissioner SWEET. And you have alluded to that as an unjust discrimination between that part of the community and the balance of the community?

Mr. STORRS. Yes, sir.

Commissioner SWEET. And especially that part that owns automobiles?

Mr. STORRS. Yes, sir.

Commissioner SWEET. There is no question about whether your position is right with regard to that, is there?

Mr. STORRS. I do not see any question about it; and so far we have always been able to convince the commissions or others.

Commissioner SWEET. Yes; you probably could convince commissions. Do you think the general public understands it that way?

Mr. STORRS. They can not help—they do not now, but they can not help but recognize that as we convince an ever increasing number of people of the serious condition of things and the solution for it.

Commissioner SWEET. Do you think that is a part of the educational work that should be carried on now?

Mr. STORRS. Absolutely. There is no question about that.

Commissioner SWEET. If I understand you right, you think that jitneys, autotrucks, and any conveyance that carries people for hire, ought to be regulated and controlled on the same equitable principles, with a view to the general interest of the public, as well as the electric railways?

Mr. STORRS. Absolutely.

Commissioner SWEET. You would recognize, then, the right of jitneys to exist?

Mr. STORRS. Without question.

Commissioner SWEET. But I dare say that you think if they were properly regulated there would not be so many of them?

Mr. STORRS. The weather regulates them automatically at times. During periods of severe rains, they get off of the streets, and during periods of snowstorms the service is entirely discontinued, or continued, perhaps, through that portion of the street that is cleared of snow by the railway for its own needs.

Commissioner SWEET. If the same rule were applied to these methods of conveyance as is applied to electric railways, do you think it would make a very material difference in the number of jitneys that would be used?

Mr. STORRS. Oh, without doubt.

Commissioner GADSDEN. As a matter of fact, has not that been the history throughout the United States already, Mr. Storrs?

Mr. STORRS. That has been the history.

Commissioner SWEET. Have you figures that would show that?

Mr. STORRS. They can be prepared. We have no figures of that particular kind, because in our country there has been no regulation.

Commissioner SWEET. But it would seem reasonable that they should be regulated on the same general principles as the electric railways.

Mr. STORRS. Yes; that is true.

Commissioner SWEET. Can you think of any reason that would be given why they should not be so regulated?

Mr. STORRS. It is inconceivable to me that there would be any reason.

Commissioner SWEET. You spoke about autotrucks carrying people in cities, in New Haven, for instance, or from inland to some bathing point?

Mr. STORRS. Yes.

Commissioner SWEET. Where was that—down to Savin Rock?

Mr. STORRS. No; this is on the other side of the shore, down toward Lighthouse Point; but that is immaterial, of course, although it is indicative.

Commissioner SWEET. Down to Fair Haven?

Mr. STORRS. Down to Fair Haven; yes.

Commissioner SWEET. Is there no regulation whatever in New Haven; is there no restriction upon what they can do in that respect?

Mr. STORRS. The State did pass, at the last session of the assembly, a law requiring them to file a bond for security beginning next January.

Commissioner SWEET. Do you mean to protect the users against accidents?

Mr. STORRS. Accidents; that is all. Of course, there is the usual regulation relative to obtaining licenses, but nothing in the way of regulation at all.

Commissioner SWEET. Is a license fee of any material size required?

Mr. STORRS. Not much—very small.

Commissioner SWEET. Is there a larger license fee for those carrying passengers than for those who do not?

Mr. STORRS. Yes; there is an additional fee required of \$25 or \$30.

Commissioner SWEET. You spoke about transfers and the great number of miles passengers are often carried for the initial expense of a nickel, or 6 cents, or whatever the fare may be?

Mr. STORRS. Yes, sir.

Commissioner SWEET. Have any changes taken place since in that regard?

Mr. STORRS. Not on our property. There have been some changes made on some of the other smaller properties around, in restricting the transfer use, or making a charge of the issuance of a transfer.

Commissioner SWEET. None of your passengers, I infer, could ride 54 miles for a nickel?

Mr. STORRS. Hardly.

Commissioner SWEET. Or 6 cents?

Mr. STORRS. Hardly. That would be merely an absurd case.

Commissioner SWEET. What is the farthest they can ride on your system for 6 cents?

Mr. STORRS. About 13 miles, an extreme case. Nobody would avail themselves of that service.

Commissioner SWEET. That would be less than half a cent a mile?

Mr. STORRS. Yes.

Commissioner SWEET. Do you think that the fares charged ought to be in proportion to the distance?

Mr. STORRS. You are getting down to the fundamental theory there on which the American city has been developed. That is the universal fare throughout an entire area. Now, we are coming down to fundamentals.

Commissioner SWEET. Well, on the steam railroads, from city to city, the custom, of course, throughout the country is to charge according to the number of miles, at so much a mile?

Mr. STORRS. Yes.

Commissioner SWEET. Is that feasible on the electric railways?

Mr. STORRS. Yes; unquestionably it can be made feasible, and should be made so.

Commissioner SWEET. It can be made so?

Mr. STORRS. Yes.

Commissioner SWEET. Well, what would the effect of it be?

Mr. STORRS. Well, we would naturally hope for improvement before we would ask to put it into effect.

Commissioner SWEET. From the standpoint of the railway do you think it would result in a remedy?

Mr. STORRS. Yes.

Commissioner SWEET. And it would help them out of their present situation to a very considerable extent?

Mr. STORRS. We hope so.

Commissioner SWEET. That is, assuming that people paid the fare, and that they did not lose any traffic to a large extent?

Mr. STORRS. Yes.

Commissioner SWEET. What would be the effect, based upon the general community?

Mr. STORRS. It can not help but have the effect of gradually drawing in all of the tenement districts to the inner zone of the city.

Commissioner SWEET. In European cities has it actually worked in that way?

Mr. STORRS. I understand so as to the condition of the inner area of the city. That is the only portion that is served, and conversely, the fact that it is congested must be to a certain extent due to the fact that it is the only part served.

Commissioner SWEET. Well, in reasoning on the subject, is not that the natural conclusion to come to?

Mr. STORRS. Yes, sir; I have always drawn that conclusion.

Commissioner SWEET. Then, in this regard, there seems to be a direct conflict of interests between the general community and the railway companies. It would be to the interest of the railway companies to adopt the system that prevails on the steam railroads, would it not, and that would be inherently just, would it not?

Mr. STORRS. It would seem to be inherently just and much more reasonable.

Commissioner SWEET. And then the people would pay for just what they get?

Mr. STORRS. Yes.

Commissioner SWEET. But in the interest of the proper distribution of the population and to prevent the congestion in the centers of population, the other system has been adopted throughout the United States?

Mr. STORRS. Yes, sir; the fundamental theory.

Commissioner SWEET. And it has worked, as you no doubt would expect it to work, and has produced the distribution that has decided advantages from many standpoints?

Mr. STORRS. Yes, sir.

Commissioner SWEET. Now, let me ask you this question: If that antagonism of interest is recognized between the general interests of the community in that particular and the interest of the companies, what remedy, what meeting ground, what sort of compromise do you think should be made so as to get the best results from the standpoint of both the companies and the general public?

Mr. STORRS. I can not see that there is any happy medium between the two theories of a flat rate of fare and a distance tariff. It seems to me we must either have one or the other.

Commissioner SWEET. Well, would not a flat rate such as generally prevails regardless of distance, unless the distance becomes very considerable, carry out the desire of the public with regard to distribution?

Mr. STORRS. Yes.

Commissioner SWEET. And would not the same flat rate, if it was enough, and if the general public was educated up to the point of paying it, so that it did not reduce the patronage of the company, meet the case from the standpoint of the company?

Mr. STORRS. Oh, yes. They would still buy the goods at the higher rates.

Commissioner SWEET. Yes.

Mr. STORRS. Yes.

Commissioner GADSDEN. Would the short-haul rider do it, though?

Mr. STORRS. The trouble is they won't buy the goods. They will buy the jitney goods instead.

Commissioner SWEET. Well, you said they would use the jitneys.

Mr. STORRS. Or walk.

Commissioner SWEET. Or walk.

Mr. STORRS. The short-haul riders.

Commissioner SWEET. Of course, the largest profit is on the short haul?

Mr. STORRS. Yes.

Commissioner SWEET. There is less service performed?

Mr. STORRS. Oh, yes; the more people you can get in the same car on each mile of the trip the more profit that car makes, of course.

Commissioner SWEET. You do not, as far as I can see, hold out any very rosy anticipation for the immediate future.

Mr. STORRS. Not the immediate future; no, sir. We hope that this will be made a continuing business, however, with the assistance of the commissions.

Commissioner SWEET. There is no doubt of that, Mr. Storrs, but would not the general collapse of the street-railway business result

in great injury to the general public, and not only the general public, but to a great many people of comparatively small means who have invested in their securities? Is not that true?

Mr. STORRS. Tremendously so.

Commissioner SWEET. It is almost unthinkable that these great properties should be permitted to evaporate and collapse, and yet some means has got to be found to meet the present emergency—which is certainly acute, is it not?

Mr. STORRS. Decidedly acute.

Commissioner SWEET. And then it must be followed up, I should judge, from what you say, by a readjustment on the line, according to the conditions that have arisen since the old days?

Mr. STORRS. That is my thought on it.

Commissioner SWEET. In fact, up to within a comparatively recent period?

Mr. STORRS. That is my thought on it.

Commissioner SWEET. That is a correct statement?

Mr. STORRS. That is my thought.

Commissioner SWEET. Thank you.

Commissioner GADSDEN. Mr. Storrs, on this matter of the difference between a flat rate and the zone system, Mr. Commissioner Sweet wanted to know whether there was any compromise. Don't you think you have worked out the answer to it, or they have worked it out in Massachusetts—that where the community prefers a flat rate of 5 cents it agrees to subsidize the company for the difference?

Mr. STORRS. There is no question about that.

Commissioner GADSDEN. That is the answer, is it not?

Mr. STORRS. The complete answer is the subsidizing of the property. There is no question about that.

Commissioner GADSDEN. If the necessary revenue for a given piece of property had been properly ascertained, a community could very well decide, for sociological reasons, to keep a 5-cent fare, and enter into a contract with the company to put up the difference out of general taxation, could it not?

Mr. STORRS. There is no question about it.

Commissioner GADSDEN. And in that way solve the question of the flat rate, if it be thought desirable to keep the flat rate?

Mr. STORRS. Yes. If the theory on which so many cities have been developed has been a proper theory from the standpoint of the communities, the only way to get that is by proper taxation.

Commissioner GADSDEN. As a matter of fact, Mr. Storrs, is it not your observation that this solution of the community problem of America has been worked out by the electric railways at their own expense so far?

Mr. STORRS. Absolutely. There is no question about that.

Commissioner GADSDEN. Therefore, if the American people are wedded to this system, would it not be proper that they should at least come in and pay the difference?

Mr. STORRS. Unquestionably.

Commissioner GADSDEN. Instead of being put up by the stockholders or the bondholders in electric railways?

Mr. STORRS. There is no question about it.

Commissioner GADSDEN. That would seem to be a fair way to meet the issue, would it not?

Mr. STORRS. Yes.

Commissioner GADSDEN. Now, Mr. Storrs, on the question of the effect of the zone system on congestion, which you have referred to; the effect of the zone system in America is largely problematical, is it not?

Mr. STORRS. Absolutely problematical.

Commissioner GADSDEN. We have no basis for thinking that what has happened in Europe is going to happen here, have we?

Mr. STORRS. None whatever.

Commissioner GADSDEN. As a matter of fact, have we not in New York City to-day, with the flat rates of fare of 5 cents, as congested a district as there is in the world?

Mr. STORRS. Yes; that is doubtlessly so.

Commissioner GADSDEN. Notwithstanding the fact that for a nickel you can ride anywhere from 30 to 40 miles?

Mr. STORRS. Yes.

Commissioner GADSDEN. Yet that condition exists to-day under a flat-rate situation, does it not?

Commissioner MEEKER. Would you let me make a suggestion there?

Commissioner GADSDEN. Yes.

Commissioner MEEKER. Is it not, perhaps, partly due to the flat-rate situation that we have the greatest congestion known in the world in New York City? And is it not quite as likely that a zone rate will result in scattering industries to smaller localities rather than to center industries and population in urban centers?

Mr. STORRS. It is very hard to assume, in connection with the New York situation, that it is entirely due to transportation.

Commissioner MEEKER. My object in making the suggestion was to show that the flat rate of fares and the zone rates operate in two directions simultaneously; and that you can not, in my judgment, foretell what the result will be.

Mr. STORRS. No, sir; that is true.

Mr. WARREN. That is, it will keep some people at home in their own zone?

Commissioner MEEKER. Yes.

Mr. WARREN. And it will lead other people to congest themselves in the central zone, and you can not tell until you have tried what is going to be the result in a particular locality.

Commissioner MEEKER. Yes.

Mr. STORRS. That is the entire problem.

Commissioner MEEKER. Pardon me for making the suggestion.

Commissioner GADSDEN. Yes.

Commissioner MEEKER. We can not derive very much useful information from the history of the trolleys, the electric railways of Europe, because they are older communities, much more thickly populated, and they all had about the degree of congestion that they have now before any trolley was put in.

Mr. STORRS. Yes.

Commissioner MEEKER. And our communities are wholly different; and I do not think we can safely deduce from European history.

Mr. STORRS. We can only deduce from the European history the fact that the building of the trolleys has prevented the congested areas of cities, or those trolleys would be profitable ventures.

Commissioner MEEKER. That would be a generalization that would be true anywhere.

Mr. STORRS. That is just the point. There is no question but what it means the gradual bringing in of the trolley development, unless some other means should be found, and to abandon the unprofitable parts.

Commissioner SWEET. Is not that merely another way of saying that if you had only the profitable parts of your road and could abandon the unprofitable parts, you would be making money?

Mr. STORRS. Of course.

Commissioner GADSDEN. Mr. Storrs, on the question of the regulation of the jitneys—the jitneys started on the Pacific Coast, did they not?

Mr. STORRS. Yes.

Commissioner GADSDEN. They started at Los Angeles?

Mr. STORRS. At Los Angeles and in the southern part of the State.

Commissioner GADSDEN. That was the great center of the jitney activity?

Mr. STORRS. Yes.

Commissioner GADSDEN. Do you happen to know what the history of the jitney in Los Angeles has been in recent years?

Mr. STORRS. Practically elimination, as I understand it—the elimination of the service of the jitney out there.

Commissioner GADSDEN. By what?

Mr. STORRS. By the safety car and the operation within the congested area.

Commissioner GADSDEN. What about public regulation?

Mr. STORRS. Public regulation, too, has had the effect of making them a responsible transportation medium and eliminating the casual operator entirely.

Commissioner GADSDEN. Well the point I wanted to get your opinion on was this: Is it not true that wherever there has been proper public regulation, the jitney has practically disappeared?

Mr. STORRS. Almost entirely.

Commissioner GADSDEN. Now, Mr. Storrs, do you happen to know whether the Los Angeles railways are interested in operating jitneys of their own?

Mr. STORRS. I do not.

Commissioner GADSDEN. Mr. Storrs, did you intend to give the commission the impression that an increase of fare beyond 6 cents would necessarily result in a loss of revenue?

Mr. STORRS. Not at all.

Commissioner GADSDEN. I rather got that impression.

Mr. STORRS. That was very much too broad. Throughout our communities in New England it has been generally the fact that where there is an increase of fare, there has been a loss of patronage. I think that is almost universally so. Mr. Warren can correct me if I am not correct.

Mr. WARREN. I did not catch that.

Mr. STORRS. As to whether an increase in rates of fare would tend to decrease the revenue. It was a misstatement on my part, if it

was so understood. My thought was that with the increasing of the rate of fare over and above 6 cents—there has been an increasing loss of patronage, although still the gross was ascending.

Commissioner GADSDEN. Yes.

Mr. WARREN. Not in all places. Mr. Ford, of Portland, testified that when it was a 7-cent fare they got 37 per cent.

The CHAIRMAN. Twenty-five per cent out of the possible 40 per cent.

Commissioner GADSDEN. Does not your own experience in Connecticut tend to prove the fact that if you will stick out long enough you are going to get the money?

Mr. STORRS. That is true.

Commissioner GADSDEN. You put in a 6-cent fare, and for a year you could get no result, but at the end of 18 months you got 14 per cent. Now, don't you think that that is true, as a general proposition, if we stay by the fare?

Mr. STORRS. That may be true.

Commissioner GADSDEN. That we will sell the transportation at a higher price.

Mr. STORRS. That is probably true.

Commissioner GADSDEN. It has been true in connection with your property?

Mr. STORRS. It has been true in our property, certainly.

Commissioner GADSDEN. Mr. Storrs, have you had any experience in your Connecticut properties with the frequent-service car?

Mr. STORRS. Yes.

Commissioner GADSDEN. I think the commission would be interested in having your experience from the standpoint of the operators. We have heard from the manufacturers, and we would like to hear from the operators on that.

Mr. STORRS. Well, in connection with that, we have relatively few of the safety cars. Twenty of them were purchased originally, and some of them were placed in service in Bridgeport, some in New Haven, and some in Hartford. They have been universally satisfactory, so far as we can find. One of the communities is so thoroughly satisfied with them that they are requesting us to abandon all other means of transportation in that community. We operate something like 100 cars at the present time. From the standpoint of the management, the treasury is the only thing to look at; and they are entirely satisfactory. A more frequent service brings a greater gross revenue, a slightly increased service a slightly increased gross revenue and, of course, an equal service brings a decreased operating cost.

Commissioner GADSDEN. Would you care to say what community that was?

Mr. STORRS. That is in Bridgeport.

Commissioner GADSDEN. In Bridgeport?

Mr. STORRS. I would be glad, if you care to have me do so, in order to get the atmosphere, to file as part of this testimony a letter which was written by the secretary of the Chamber of Commerce of the city of Bridgeport to the secretary of the Chamber of Commerce of the city of Norwalk, that letter having been written without our knowledge. I can get a copy of that.

Commissioner GADSDEN. We would be glad to have you put it in.

Mr. STORRS. Yes.

Commissioner GADSDEN. In that connection you referred to a report of the Connecticut Commission?

Mr. STORRS. Yes, sir.

Commissioner GADSDEN. I wish you would put that in the record.

Mr. STORRS. I will be glad to.

Commissioner GADSDEN. As a part of your testimony?

Mr. STORRS. Yes, sir.

The CHAIRMAN. There are about 6 miles of lines in Connecticut to 1 in England.

Mr. STORRS. That was on those cities.

The CHAIRMAN. I wonder if that is due to the fact that in England the trolley lines came after the cities and villages had been established?

Mr. STORRS. Very possibly so.

The CHAIRMAN. While here the trolley lines have been attempting to create business and develop the country. Would not that be a large reason—

Mr. STORRS (interposing). It might have some effect. At the same time you are familiar with some of the English cities and British cities and foreign places. They do not have the dense transportation facilities that we have in this country.

The CHAIRMAN. You have given us some very interesting testimony about the growth of the automobile, the jitney, and the motor-truck business. In 1905 there was one automobile to each 17 families, and in 1917 one automobile to each 5 families?

Mr. STORRS. Yes.

The CHAIRMAN. Naturally, there was a very great use of that kind of conveyance?

Mr. STORRS. Yes.

The CHAIRMAN. And that has determined the revenues of the utilities?

Mr. STORRS. If you will go through some of the New England cities, outside of the industries, you will see the field parked with automobiles, all of which are owned by the operatives in that industry and used in their trips back and forth by that operative and his neighbors.

The CHAIRMAN. Do not the automobile and the good roads also bring into the zone of the street-car operations a great many people from the country?

Mr. STORRS. It is conceivable that they do.

The CHAIRMAN. To do business, and they travel upon the cars?

Mr. STORRS. That is true. There is a certain revenue in that way.

The CHAIRMAN. Does not the amount of business that is brought in in that way to your companies result in meeting the losses which you sustain within the city?

Mr. STORRS. No; not at all.

The CHAIRMAN. Does it not do so in any considerable part?

Mr. STORRS. No, sir; not at all. I think that that case that I referred to in Berkshire is very clearly indicative of that. Our service there has not grown materially over what it was five years ago in the city, and our suburban service has decreased two-thirds over what it was five years ago.

The CHAIRMAN. During the growth of the automobile industry, there has likewise been, I suppose, an increase in the gross earnings of the street-car industry?

Mr. STORRS. I have never checked that up.

The CHAIRMAN. Has this increase kept pace with the growth of the automobile industry?

Mr. STORRS. No; not by any manner of means.

The CHAIRMAN. Mr. Ford and others are suggesting the construction of a very much cheaper automobile; and I presume we have reason to believe that in the course of years the use of machines will be very much extended?

Mr. STORRS. Of course, that depends entirely upon the traffic possibilities in the street. There is a limitation on the streets and roads. Certainly the highways throughout the populated portions of New England have reached their maximum carrying capacity for automobiles on Saturdays and Sundays and when the casual rider is out.

The CHAIRMAN. And if the automobile industry does expand, what is the ultimate future of the street-car industry? Of course, we must all of us realize that the street-car industry or something to take its place is here to stay, because the people must be served. Now, what will be the ultimate effect on the street-car industry if this automobile industry expands as rapidly as it has in the past?

Mr. STORRS. Recognition by the community of the need of transportation and the subsidizing of it to meet that need. They are subsidizing the automobile utility now by paving and things of that sort, which they are offering them free.

The CHAIRMAN. If you reach that point, will private capital be interested in investing in the street-car industry?

Mr. STORRS. With a guaranteed return, I imagine it would.

The CHAIRMAN. Well, if there is not a guaranteed return?

Mr. STORRS. No; certainly not.

The CHAIRMAN. Suppose the communities are obliged to guarantee a return to the street-car industry. Do you think that will conduce to the continuation of private ownership and operation of the utility?

Mr. STORRS. It is conceivable that there would be some method of recognizing that subsidy that would still give to the management of the industry and the investor a method of compensating them for their initiative and ownership.

The CHAIRMAN. Do you believe it would create a very pronounced agitation for municipal ownership and operation?

Mr. STORRS. Conceivably so.

The CHAIRMAN. Suppose we reached a point where communities must guarantee, or rather, subsidize, this industry, do you believe that private ownership and operation or municipal ownership and operation should be preferred?

Mr. STORRS. I think that private ownership and operation would be preferable from all standpoints—from the standpoint of the investor, because it will recognize his energy and initiative in the constantly-increasing return, and from the standpoint of the community in the certainly declining rate of fare, as compared with what would result if the municipality itself were to operate the property.

The CHAIRMAN. Is there any experience in this country which would help this commission to reach a conclusion upon that question?

Mr. STORRS. That I am not thoroughly advised of.

The CHAIRMAN. That is all.

Commissioner SWEET. Can you express any opinion on the service-at-cost plan?

Mr. STORRS. I am not an expert on that, because we have not got it, but I have, of course, followed that with a great deal of interest. I have followed the development of it.

Commissioner SWEET. You have not tried that out on your system?

Mr. STORRS. We have not tried that out on any of our properties.

Commissioner MEEKER. I would like to ask one question, if I may.

I thought I understood what your opinion was with regard to competition from motor vehicles. I am not so sure that I understand it now. Do you think that, if there should come about a very great improvement in some means of transportation other than street-railway transportation, a means of transportation that was clearly better and more economical than street-railway transportation, the street railways should still be maintained by means of subsidies?

Mr. STORRS. In that connection, I would say that the development of the art has been from within the art itself and not from any surprise point, such as the automobile. The automobile to-day is not capable or properly equipped to take care of the transportation needs of the community; nor is it at all possible to operate on the same basis as the electric railway operates, except in isolated cases; but the development to the ideal to which you refer, it seems to me, must come from within the industry itself, and that would be a great deal of progress.

Commissioner MEEKER. That is, the street-railway industry?

Mr. STORRS. That is my thought in connection with that.

Commissioner MEEKER. I have in mind the situation with respect to the old toll roads and the steam railroads.

Mr. STORRS. Yes.

Commissioner MEEKER. The courts of Maryland decided that the toll roads, although they had been granted monopoly charters, could not stand in the way of the much more economically operated means of transportation, the steam railroads, and so they did not—I don't remember whether the suit was in the nature of an injunction or not, but at least they did not uphold the contentions of the toll roads, and I think the same rules would apply in the case of the street-railway companies.

Mr. STORRS. Of course, they might, but the thought was so entire hypothetical as to the future that it was not one that I could base a judgment on.

Commissioner WEHLE. Is the commission correct, Mr. Storrs, in understanding you as saying that, based on your knowledge of the Connecticut situation, the only way of preventing these public utilities from becoming public utilities is for the general public to guarantee deficits of the privately operated companies?

Mr. STORRS. In this report, which I am leaving on file here, there was gone into quite largely the question of temporary relief, and that commission spoke of it all the way through as a means of temporary relief, until we could come to some adjustment, and without any question in my mind the same is true in Connecticut as has been true in Massachusetts and other places.

The CHAIRMAN. I notice you have that Connecticut report in your hand, Mr. Storrs.

Mr. STORRS. Yes.

The CHAIRMAN. Can you secure enough copies to file with us so that we will not have to have it transcribed in the record?

Mr. STORRS. Oh, yes.

Commissioner WEHLE. Mr. Storrs, do you think that in the freight business, both urban and interurban, there might be a source of revenue to the electric railways which has not yet been developed and which might possibly effect a greater financial return to them?

Mr. STORRS. Without question, there is a by-product there of considerable value.

Commissioner WEHLE. Mr. Warren, I have conferred with the chairman over the following questions which it was thought might be developed by you through witnesses:

First, to what extent might the net revenues of traction lines in the larger cities be increased through a use of the properties for city express service at such times and under such conditions as would not impair passenger service?

Second, have companies undertaken such service as this kind in any cities; if so, with what financial results?

Third, have companies been prevented from developing such city express business through limitations in franchises, and have there been attempts to have such limitations removed; if so, with what results?

Fourth, to what extent, if at all, does the interurban freight business improve the earnings of traction companies?

Have you considered, Mr. Warren, that that field of inquiry could be developed in this hearing? I think it would be of interest to the commission.

Mr. WARREN. We certainly shall try it. Some of it, I think, can be furnished. Whether the rest of it can, I do not know.

The CHAIRMAN. Mr. Warren, before you proceed with the next witness, the commission wishes to submit a proposition to you. This is the month of July, and the weather is somewhat enervating. However, we are all confronted with a tremendously important problem, and it is one, of course, that should command our undivided attention until the question is disposed of. The commission is willing to violate the union hours and hold night sessions, from 8 o'clock to 10, to expedite these hearings, if it is convenient to yourself and your witnesses, and if you will confer with your associates and your witnesses during the noon hour—

Mr. WARREN. Yes; I will be very glad to.

The CHAIRMAN. And advise us after our recess, which we will take from now until 2 o'clock—

Mr. WARREN. We can assure you at once that we will accept it.

The CHAIRMAN. Then it is understood that, beginning to-night, we will have sessions from 8 o'clock until 10.

Mr. Warren, in connection with the questions that were asked by Commissioner Wehle, will you insert one more:

What advantage is there to be gained in utilizing a double-deck passenger car, and what experience has there been with that car in this country or in Europe?

Mr. WARREN. We will be glad to add that.

The CHAIRMAN. Have you any witness that can complete his testimony before the hour of adjournment?

Mr. WARREN. I have not. I was going to ask you to suspend now. The CHAIRMAN. Then we will adjourn until 2 o'clock.

Mr. WARREN. Yes.

(Whereupon, at 12.55 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

Mr. WARREN. Mr. Chairman, during the noon recess I have been looking over my witnesses somewhat and I am afraid that I can not to the best advantage go on with an evening session this evening. After this evening I am very confident I can; but the list of witnesses has been made up for the day, and if it could be possible to begin night sessions to-morrow evening instead of this evening, I think perhaps we shall get along just as rapidly.

The CHAIRMAN. I am quite sure it will be agreeable to the commission to suit your convenience.

Mr. WARREN. Then we may leave it that way—that the evening sessions may begin to-morrow evening?

The CHAIRMAN. Very well.

Mr. WARREN. Mr. Nash, will you take the stand?

STATEMENT OF MR. LUTHER R. NASH.

Mr. WARREN. Your full name.

Mr. NASH. Luther R. Nash.

Mr. WARREN. You are an engineer by education, I think?

Mr. NASH. By education.

Mr. WARREN. And you are a member of the Stone & Webster staff?

Mr. NASH. I am. I have been connected with the Stone & Webster organization for about 24 years.

Mr. WARREN. And along what lines does your experience run in that organization?

Mr. NASH. About the first third of that period I was designing and constructing engineer and made various investigations in connection with the surveys of prospective fields and other work preliminary to and in connection with the construction of public-utility properties. Following that I became the manager of one of the Stone & Webster properties for about four years. After that I was connected with the supervisory staff of a group of the Stone & Webster companies and had to do with the general problems of management and betterment, engineering and financial plans. More recently I have given more particular attention to the public relations problems, matters of rate and fare adjustments, valuations, tax adjustments, and financial plans.

Mr. WARREN. And have you also given special attention and made a special and pretty detailed study of the so-called service-at-cost franchises and plans?

Mr. NASH. I have. I have been connected with the working out of a number of such franchises and have made a study of all of those which are now in effect in the United States and Canada.

Mr. WARREN. Will you describe to the commission what you consider the essential features of a service-at-cost franchise?

Mr. NASH. I think perhaps, not to directly answer your question but to get at the import of it, service at cost was developed in the days before State regulation of utilities was beyond its experimental stage.

The first service-at-cost franchises were framed in 1907. Except for Massachusetts, there was no commission with full regulatory powers previous to 1907. And I might add that, up to 1918, there were no service-at-cost franchises put into effect in States which had public-service commissions.

The purpose or scope of service-at-cost franchises is not at all dissimilar to that of the regulation of the public-service commissions. It involves the determination of all the elements of cost of service and adjusting the fares to that cost. The elements of cost include the return on the capital invested, which the investors demand for the use of their money, the ordinary expenses of operation, the upkeep of the property or a provision for its depreciation, taxes, and the creation of such reserve barometer funds and, in a few cases, amortization, although I do not consider amortization any part of the proper cost of service. Those are the fundamental elements which enter into practically all of these service-at-cost franchises. Not all of them carry out fully the service-at-cost plan. The early ones had a fixed fare, which was assumed to be higher than the cost of service, with a provision that the surplus yielded by this fixed fare in excess of the cost of service would be divided between the city and the railway. But the later forms have an automatic adjustment of the fare to the cost, and that automatic feature I consider the essential difference between the operation of a service-at-cost franchise and the regulation of railways as practiced by the State commissions.

I think one reason why the service-at-cost plan has become popular is because of this automatic feature. It has been the experience of a good many railways in taking cases before public-service commissions, even where these commissions have full authority to act, which they have not in many cases, that action has been slow. I have been concerned in a number of rate cases myself where, with a comparatively free slate, the commissions have held cases under consideration for the major part of a year before rendering a decision, even when the condition of the railway, its need of additional revenue, were perfectly obvious.

As an alternative, any plan of procedure which would automatically increase—or decrease, so far as that is concerned—the fare as soon as the need developed, is and should be welcomed by the electric railways.

Mr. WARREN. Is there anything about that sliding scale, that automatic adjustment of rates with the cost of the service which, in your judgment, is incompatible with the jurisdiction of the State commission or with the State commission's exercising the authority which under some of these franchises is reposed in municipal or local authorities?

Mr. NASH. I do not think there is any fundamental difference in the effectiveness of the plan as far as the fare schedule is concerned as to whether a State commission or a local board has immediate supervision. The automatic feature might be applied in either event perfectly well.

Mr. WARREN. As a matter of fact, Mr. Nash, when the Massachusetts service-at-cost statute was adopted last year, I think, the

adoption of the sliding scale itself is first to be determined by the commission, is it not? Or do you recall?

Mr. NASH. Yes; in case of the Boston Elevated and the Bay State Gas——

Mr. WARREN. I mean the general law.

Mr. NASH. Yes; the State commission has jurisdiction under the general Massachusetts act.

Mr. WARREN. The scale has to be satisfactory to the State commission; and, as I remember the act, there was a provision for changing the scale from time to time on the initiative of the company, with the approval of the commission, or something of that sort; was there not?

Mr. NASH. It is my recollection that the State has entire jurisdiction; that there are no local boards having any jurisdiction at all.

Mr. WARREN. Was there something you wanted to say about that?

Mr. NASH. I think not.

Mr. WARREN. The term, I suppose, varies a good deal in these different service-at-cost plans which have been adopted?

Mr. NASH. There is quite a wide range, from 20 years to an indeterminate form. The indeterminate form, I think, is becoming decidedly more popular, and properly so, because of the great facility in financing and refinancing under a plan of that kind. With either State or local supervision the public is amply protected against any inferiority of service or excessive charges or any of the other things that might develop without regulation.

Mr. WARREN. In fact, is one of the merits of the plan, where that feature is incorporated in it, that the term is indeterminate so that the city or territory served is always free to purchase the property if the service is not properly conducted?

Mr. NASH. That is a provision usually coupled with the indeterminate franchise that the city may purchase at any time on reasonable notice, and that, of course, is a protection against any misbehavior on the part of the railway.

Mr. WARREN. And the price is usually determined in connection with the franchise?

Mr. NASH. It is usually the purchase price and capital value, so called, which is the rate base, which are usually the same. That is, the value of the property is fixed at the time the franchise becomes effective and as additions to the property are made, and, as property is abandoned, the appropriate additions or subtractions are made; so that there is constantly kept up a so-called capital value of the property on which the return provided for in the franchise is allowed and which is very often used as the basis for accruing for depreciation, all in addition to being the basis of purchase by the municipality.

Mr. WARREN. And this rate base is determined how? This rate base, I take it, is the amount on which the return on the investment is figured or estimated?

Mr. NASH. Usually that is a sum determined more or less arbitrarily, I might say, with due consideration to the outstanding securities, the actual investment in the property and its cost of reproduction, and so forth; but in the majority of cases the amount which has been determined coincides fairly closely with the actual investment in the property. That is at least true in Massachusetts, where

the actual investment has been the standard for a good many years of the rate base which the commissions have adopted. And, although cost of reproduction has been used and been recommended in other jurisdictions, I think there is a definite tendency toward actual investment, so far as that can be determined. Of course, in the case of many of the very old railways which have gone through numerous reorganizations and consolidations it is often difficult to determine from the accounting records what the actual investment was, but it is usually possible to make some approximation by a thorough search through the old records.

Mr. WARREN. But in every case there lies at the entrance upon this plan a determination by agreement or in some way—ultimately by agreement, I suppose—as to what that rate base, or so-called value of the property, shall be.

Mr. NASH. That is one of the essentials of the service-at-cost plan.

Mr. WARREN. Then, as to supervision—does the plan ordinarily contemplate supervision of the operation and finances of the company?

Mr. NASH. Ordinarily the plan provides for a local supervisor or board of control, with one to three members, which has supervision over the service, the accounting, the rates, and matters of extension; in fact, the general supervision of the operations and policy of the property.

Mr. WARREN. And where the plan is put into effect merely as a local undertaking by arrangement between the company and the local authorities of the city or town, the supervising commission, if there be one, has nothing to do with it?

Mr. NASH. No.

Mr. WARREN. As in Ohio?

Mr. NASH. In Ohio there are two service-at-cost franchises in operation—in Cleveland and in Cincinnati; and in both of those cities the local supervisor has direct charge and full charge over the regulation of the railways. The State commission has no such authority.

Mr. WARREN. As a matter of fact, does the Ohio commission—if you happen to know—have very much jurisdiction over street railways?

Mr. NASH. I am not very familiar with the act there, but as far as its actual operations are concerned, it has not. I have seen very few evidences of its activities in railway cases.

Mr. WARREN. If you were recommending the supervision provision in such a franchise, should you stop with the absolute jurisdiction in the local authorities, or should you provide an appeal, and if so, to whom?

Mr. NASH. I do not think that the absolute local supervision would work out to the best advantage. It has worked fairly satisfactorily in the cases where it has been tried, but experience with any of these franchises has been comparatively limited. It seems to me that in the final analysis authority ought to be lodged with the State regulatory authorities.

Now, there are all kinds of degrees of jurisdiction between local and State that might be worked out. For example, the city might appoint a representative, who would be called a supervisor, or he might be an existing city official, who would represent the city in

negotiations with the company with respect to service, extensions, or changes in rates or operating conditions, and in 9 cases out of 10 the city representative and the company representative would probably agree upon what should be done. In cases where they could not agree, I think the logical appeal should be to the State commission, partly because of their wide acquaintance with the conditions which have arisen in some particular locality and partly because it removes the decision in the case further away from local appeal and prejudice. City officials are apt to make the best kind of a trade they can for their constituents, and the State commissions, on the other hand, have a broader view and are more apt to decide the question upon abstract merits and with a view to the long-range interests of the community rather than its immediate advantage.

Mr. WARREN. What do these franchises provide, if there is any usual provision in them, with respect to franchise practice? And what, in your opinion, should be the provision regarding franchise practice?

Mr. NASH. There are only two or three of the dozen, approximately, that I recall that provide specifically for a tax which could be called a franchise tax or a rental. In fact, the only two that I recall at the moment are Montreal and Cincinnati, in which substantial sums are provided to be paid annually as a price for doing business on the city streets. In both those cases the percentage of the gross earnings, if I remember rightly, is in excess of 4 or 5 per cent; in one case it is considerably higher than that.

I do not at all approve of that kind of a tax. Theoretically a tax on a franchise ought to be a tax on the right to earn a profit in excess of that which investors could earn in ordinary industrial or commercial enterprises. Under a service-at-cost plan there is no excess profit. The profit is just the bare amount which theoretically the investor could earn somewhere else. So that the opportunity for rendering a public service has no special value on which a tax should be levied. So that I think taxation of public utilities should be limited to the ordinary ad valorem taxes which are paid by other industrial and commercial industries, plus also such license fees as are paid by other kinds of business; in other words, the same kinds of taxes which other industries pay and no more.

Mr. WARREN. In other words, I suppose the effect of the franchise tax, if it is levied, is to add just that much more to the cost of service to the car rider.

Mr. NASH. Yes; it is passed along directly to the car rider—which means that amount of taxes is paid by a certain group of citizens instead of being distributed uniformly over the entire list of taxpayers, as it should be.

Mr. WARREN. Do any of these franchises provide for public contributions to the cost of operation or to the cost of the service?

Mr. NASH. A number of the most recent ones do make provisions of that kind. These contributions are of different kinds and of different degrees. The franchise which was prepared—or it might be called a lease—in Philadelphia for the use of the new rapid-transit facilities which are being constructed there—an agreement which was entered into between the railway and the city which went to the public-service commission and was criticized in certain respects and has not gone into effect as yet—that franchise provided

that rentals on the city-owned rapid-transit facilities might be suspended wholly or in part by the city if the revenues under the existing fare schedules were not adequate to take care of all of the other costs of service and these rentals. And I think in all cases the rental of subways and rapid-transit lines was to be borne by the city during the first year, but thereafter it might be waived wholly or in part if, under existing or normal or what might be considered normal rates of fare, the rentals could not be paid.

Mr. WARREN. Did that franchise provide for a sliding scale of rates?

Mr. NASH. It has the sliding scale, but without the steps being defined. The determination of fares in that case was left entirely to the board of supervisors, consisting of a city representative and a company representative and a third member, who would act as an umpire in case of disagreement. That is one of the very few franchises in which no rates of fare are mentioned. Usually a scale is fixed with a certain number of steps from one to another in which the rates in effect change automatically as the costs increase or decrease.

Mr. WARREN. And in that franchise, do you remember whether there was a provision that, after the board of supervisors and the company agreed on the change in rate, the proposed change was to be submitted to the public-utilities commission for its approval?

Mr. NASH. The approval of the commission is required in that case.

Mr. WARREN. If the commission will allow me, Mr. Chairman, I should like to suspend Mr. Nash's testimony at this point and call Mr. Culkins, who is the Cincinnati director of street railways. He is not our witness in any sense, except that he has very kindly consented to come at this time, while more naturally he might come when the cities are represented two weeks from now. It seemed to us very desirable, if we could, to present somebody to the commission who would explain the city side of one of these service-at-cost franchises which is in actual operation at the same time that we explain the other side.

The CHAIRMAN. Do you intend to put Mr. Nash on again?

Mr. WARREN. Yes; we intend to put Mr. Nash on again. Mr. Culkins has to leave at 4 o'clock to get a train at half past 4, so with that explanation I should like to call Mr. Culkins.

(Witness excused.)

STATEMENT OF MR. W. C. CULKINS.

Mr. WARREN. Your full name?

Mr. CULKINS. W. C. Culkins.

Mr. WARREN. Have I correctly described your title?

Mr. CULKINS. Director of street railroads is correct.

Mr. WARREN. Director of street railroads of Cincinnati?

Mr. CULKINS. Yes.

Mr. WARREN. And in that capacity you represent the public in supervising the operations and activities of the street-railway company?

Mr. CULKINS. Yes.

Mr. WARREN. Can you and will you tell the commission how Cincinnati came to adopt this service-at-cost plan, what the public sentiment was with reference to it before its adoption and how it is working out, and how the public regard it?

Mr. CULKINS. The situation in Cincinnati was a little different from a good many other cities from the fact that there was a franchise revision open at the time this general question had arisen all over the country. And perhaps it might clarify it if I would explain briefly just how that situation arose. It was not a question of a new franchise. In 1896 the city granted a 50-year franchise to the companies which contained a provision that this franchise should be open for revision at the end of the first 20 years and each 15 years thereafter, and provided in that clause that the revision should be as to rates of fare and all other terms and conditions based equitably upon the then cost of carrying passengers, and should be acceptable to the company, and in event of their failing to agree—the company and the city—that it should be submitted to a court of competent jurisdiction by way of an injunction on the part of the company against the city's enforcing its proposed contract.

This 20-year period expired in 1916, and the city proceeded with the company to revise the franchise then which included a provision for the rental of a rapid-transit system that the city proposed building. The Supreme Court declared that franchise invalid on the ground that it was a lending of the city's credit, because the rental was not paid in the distribution of gross receipts. The payment of the rental on the rapid-transit lines came subsequent to the returns to the company. That decision was handed down in October of last year and immediately brought up the question of a further revision or a new revision.

Now, in approaching this question, the city took the view in the experience that had already appeared during the war times that there was a new viewpoint necessary in the working out of a franchise that would be the most serviceable to all concerned. They realized that a street-railway utility was the key utility in any community, since it made all other industries possible, and that therefore it was highly important to the development of the community that some kind of a franchise be worked out which would allow the community itself to expand and to do its part in the general expansion of the country. They took rather the new view. The old franchise was the old type of franchise. It contained very few restrictions; it provided that cars should run as often as the public convenience required and neglected to say who should determine that. And it was found there was a very great difference of opinion between the stockholder and the strap hanger as to how often cars ought to run. The view taken by the city in this case was that we should visualize a street-railway franchise not so much as a permit given to permit a corporation to operate an industry in the city, but as the creation of an agency to carry out a purely municipal function; that it was the duty and the function of the city, which it might exercise of its own motion and of itself, to provide transportation for its people; and that if it did not do it, it should create an agency under its control that would carry out this function in the way that the city should direct.

It was very evident that most of the trouble in street-railway franchises was growing out of too much rigidity all along the line, not only in rates of fares but in terms and conditions; and the city felt that perhaps the cure for too much rigidity was a great deal of elasticity. The question was opened at a time when prices were very high, when it would be obviously unfair to the company to expect them to operate on a rate of fare based on prewar conditions. It would be obviously unfair to the community to ask them to allow the company a rate of fare based upon war times which would continue for a period until 1931, assuming that there was a probability at least of there being some change in conditions during that period. So that the thing which seemed to be obvious was the service-at-cost plan, since it would automatically adjust itself to these changing conditions. It would be high enough to allow the public to have the kind of service that it wanted and was willing to pay for, and it would automatically reduce those rates when the costs and market conditions changed in accordance with that. So that a plan was adopted that follows somewhat the Cleveland plan, being the oldest service-at-cost plan in operation then, with such modifications as we felt experience had warranted in that plan.

Our plan, briefly, provides that the rates of fare shall be sufficient to pay the cost of service—the cost of service being defined as operating expenses and taxes and a return to the company and \$350,000 franchise tax. After that is earned, the surplus goes into a fund with the usual machinery of a reserve or stabilizing fund to regulate the rates of fare.

The CHAIRMAN. Will you refer to your franchise-tax item again? I did not understand about that franchise tax of \$350,000.

Mr. CULKINS. Yes; there is a franchise tax of that amount.

The CHAIRMAN. That is collected out of operating revenues?

Mr. CULKINS. That is collected out of operating revenues. I will be glad to refer to that further a little later, if you desire.

Mr. WARREN. How about depreciation? Have you mentioned that?

Mr. CULKINS. Depreciation, of course, will be included in the cost, although the provision in there is not altogether satisfactory, and will continue for five years, at which time the public-utility commission will decide the method of charging the depreciation.

There were many things in this franchise which had to recognize the present financial condition of the company, because it was necessary to keep the thing moving—to recognize that the company, like all companies, was in strained financial condition. The provision for a return on the capital seemed to us to be perfectly legitimate and absolutely necessary, aside entirely from the fact that a great number of our people have invested their savings in this particular utility, which is very popular, from the fact that people can see it running on the streets and feel that they own it, and very largely it is held by people in very moderate circumstances.

But primarily, from the city's point of view, the situation was no longer whether an investor should save or lose his investment, but it would be necessary to provide a return in this cost of service that would enable the company to procure the necessary new capital to carry on its expansion in harmony with the expansion of the community.

I do not know that you want me to go into minute details in describing this ordinance.

The CHAIRMAN. You may file a copy of the ordinance.

Mr. CULKINS. Perhaps that would be better.

The CHAIRMAN. But we would like to have you touch the high spots as you go along. I am quite unfamiliar with the service-at-cost plan, and I am sure the other members of the commission will wish to hear more about it.

Mr. CULKINS. As I have said, it includes the operating expenses, depreciation, taxes, return to the company, and this \$350,000 franchise tax, and provides that after that, with the authority of the city, a working capital may be set up and any receipts beyond that go into what is known as the reserve fund; that is, the balancing or stabilizing fund.

Under the plan, when this fund reaches \$650,000, fares will be automatically reduced by one-half cent. When it is reduced—deficits then will be paid out of it if there are any—and when it is reduced to \$250,000, fares automatically are increased one-half cent. The \$250,000 is to be put into this fund by the company, the remainder of it to be from receipts.

The CHAIRMAN. At that point will you explain how you handle the half-cent increase or decrease in the fare?

Mr. CULKINS. It is handled by way of tickets. There is no limitation either top or bottom in this ordinance. The ordinance was initiated at a 5-cent fare, which was an incorrect rate of fare. The committee which prepared the ordinance found on investigation that it was costing $5\frac{1}{2}$ cents to carry a passenger, and recommended that the initial rate of fare be 6 cents. A committee of public-spirited citizens, who had been before the committee every day threatening a referendum, suggested that if the city would initiate the ordinance with a 5-cent fare that then they would abandon all their suggestion of a referendum. That suggestion was made about three days after Buffalo had a referendum, and I think, rather to the surprise of the city, the company came in and volunteered to carry it out on that figure. The citizens continued to talk about a referendum; but it should not have been initiated at 5 cents, because you are initiating a service-at-cost ordinance at less than cost.

I might bring this to your attention, too—that in the distribution of this surplus there is another provision that is unlike most of the service-at-cost ordinances. Based upon our information that the greatest criticism of the service-at-cost ordinance plan was that it tended to produce an inertia on the part of the company, a sort of feeling, "We get ours; now go ahead and tell us what to do"—there is a provision by which the company may participate in this surplus at certain times. When the fares are more than 6 cents, all the surplus after paying cost of service goes into the reserve fund for reduction of fares. When the fares are 6 cents the company is permitted to retain 20 per cent, 80 per cent going into the reserve fund. When fares go down to $5\frac{1}{2}$ cents the company is permitted to retain 30 per cent, and when fares go down to 5 cents or less the company is permitted to retain 45 per cent. So we think we have a piece of machinery in there which makes it always against the interest of the company to have high rates of fare, but which enforces from our point of view the necessity of economical operation.

Now, it might be said that the company might impair the service in order to get that, but the city retains absolute control. To my mind, that is a very vital feature of this ordinance. The city maintains that control over the operation of the company, over its finances, over its service, over its investments, and that control, with the exception of three particulars, is vested in the director, in one man, with a view of centralizing the responsibility. He is not only made responsible for that but he is made responsible wherever any other department touches this company—that the company need only to go to one man and then it becomes his duty to take it to the proper place. The matter of extensions, rerouting, and further franchises are vested in the city council, but they are required to refer the matter to the director for report and recommendation before they take any action on it, thus overcoming the action of the council from being influenced by a large delegation and the usual procedure.

By way of controlling the cost and expenses of the company we adopted, rather than the Cleveland plan of a car-mileage allowance, a budget plan. The company is required to file with the director, 45 days before the beginning of each year, a budget of operating expenses classified in accordance with the Interstate Commerce Commission system. That budget, however, carrying out the thought of elasticity and realizing that you can not even tell a year ahead just what will happen, may be revised by way of the company's filing a request for a supplemental budget, which the director may allow or disallow, or he may transfer among those funds in order to meet any extraordinary or unusual expenses. That is the only feature of the ordinance wherein an arbitration is involved. If the company and the director are unable to agree to the budget, then the matter may be submitted to an arbitration, which is final.

The thought of elasticity is carried out in the control, since the city determines the number of cars, the kind of cars, their frequency, where the cars shall stop, where the transfers shall be given, and in the matter of extension the city reserves the right to order extensions wherever it sees fit.

We have also included in there, in case it may be feasible to do it, the right of the company to operate freight cars, to haul express packages and anything of that character.

The council reserves the right to reroute at any time, in other words to meet whatever condition may arise at any time. There is no rigidity and no specific requirement as to anything. In the case of an order to improve service, the order is effective in 10 days unless the company files a complaint. In the event of the company filing a complaint there shall be a public hearing before the director, who finally determines after the hearing what shall be done; and the city may enforce its order in a suit for specific performance and the company may defend only on the ground it has not been allowed a sufficient revenue in the budget to carry out the improvement as ordered. Since the director has the right to authorize a supplemental budget, it really amounts to no defense or a question of fact. In regard to transfers, the only limitation is that the public may not be brought back to the point of origin.

I think I have tried to touch all the high points in the system.

Mr. WARREN. You spoke of arbitration once or twice, Mr. Culkins. Is there any fixed arbitration board or tribunal?

Mr. CULKINS No.

Mr. WARREN. Or is it selected by agreement?

Mr. CULKINS. The company selects one, the city selects another, and those two select a third, but in the event of their failing to do that the arbitration committee of the local chamber of commerce selects the third, and in event of the failure to appoint a committee the sinking-fund trustees—that is, the initial arbitrators—the sinking-fund trustees appoint them.

Mr. WARREN. Under the present rapid increases in the cost of operating street railways how is the experience of this year comparing with the budget which was presented at the beginning of the year?

Mr. CULKINS. Well, we are keeping within the budget; very close to the edge of it—well, keeping well within the budget. I think just offhand we are probably \$100,000 to the good on the budget. The budget was estimated on the basis of reaching a 7-cent fare in October.

Mr. WARREN. Of this year?

Mr. CULKINS. Yes. We are hoping not to have to reach a 7-cent fare. We went to a 5½-cent fare in January, a 6-cent fare in April, and 6½-cent fare in July. Now, our experience has probably been a little more fortunate than that of some cities in regard to the loss of traffic on the increase of fares.

Commissioner GADSDEN. Before you get into your experience, Mr. Culkins, would you go a little further into the question of how you are treating the franchise as to the cost of money?

Mr. CULKINS. That, too, is so drawn as to meet the conditions as they arise. Any new securities issued by the company must be approved by the public-utilities commission under the State law, and also by the director; and all of the terms and conditions and the rates and everything are determined at the time. There is no limitation on that. Market conditions of money determine it.

Commissioner GADSDEN. That is flexible, too?

Mr. CULKINS. That is flexible, just the same as the other.

Mr. WARREN. If you borrow money at 6 per cent, the interest charge on that money is added to the cost of service?

Mr. CULKINS. To the cost of service; yes, sir.

Mr. WARREN. And if you refund an existing issue of bonds at a higher rate that is added?

Mr. CULKINS. We recognized this principle—that you could no more foresee the value of money ahead of time than you could have foreseen these things that came upon the industry in the last few years.

Mr. WARREN. Like the rate of wage, for example?

Mr. CULKINS. Yes; like the rate of wage.

Mr. WARREN. You spoke of the council's having control of extension, I think.

Mr. CULKINS. Yes.

Mr. WARREN. And service?

Mr. CULKINS. No; the council has control of extension, rerouting, and new franchises. They are final on that. But in each case they must refer it to the director for his advice and recommendation. I think that is the term.

Mr. WARREN. Suppose he makes a recommendation one way and they can still—

Mr. CULKINS. They can still do just as they please. The value of that is that it secures some kind of study into the question; that it will not be carried by public hurrah.

Mr. WARREN. You spoke of having started with the 5-cent rate?

Mr. CULKINS. Yes.

Mr. WARREN. How soon did you go to the $5\frac{1}{2}$ -cent rate?

Mr. CULKINS. At the earliest opportunity, in the three months. Now, perhaps to explain that, until this reserve fund is accumulated the rates of fare may change every three months. In any two calendar months where the gross receipts are not equal to the cost of service, the rates of fare, beginning at the first of the next succeeding month, shall be advanced one-half cent. That is to continue until they reach the cost of service and until \$400,000 of the normal reserve fund is accumulated. When there is \$400,000 in the fund then the reserve fund may be used to meet deficiencies, but not until then.

Mr. WARREN. When you went to the $5\frac{1}{2}$ -cent rate—you may have told it but I did not catch it—that is with tickets?

Mr. CULKINS. Yes.

Mr. WARREN. And the cash fare is 6 cents?

Mr. CULKINS. Yes.

Mr. WARREN. Your present rate is $6\frac{1}{2}$ cents?

Mr. CULKINS. Six and a half cents or 7 cents cash.

Mr. WARREN. What do you estimate that that would yield, if there was no loss of traffic?

Mr. CULKINS. Well—

Mr. WARREN. Does practically everybody use the tickets?

Mr. CULKINS. No; our experience with the $5\frac{1}{2}$ and 6-cent fare, was that 80 per cent used tickets and 20 per cent paid cash. We have not got the figures out yet, but there is a sort of surface indication, which is interesting, that there will be a larger percentage of cash fares than tickets from the $6\frac{1}{2}$ and 7-cent fares, they apparently feeling that the proportion is not sufficient—a man would put up 33 cents rather than pay the extra half cent each time, but he will not put up 39 cents. However, it is not a sufficiently large fraction to be of any importance.

Mr. WARRAN. Has your experience with the increasing rate led you to believe pretty firmly that your revenue will increase with increase in rates?

Mr. CULKINS. As a broad question, I do not think there can be any doubt that under this plan raising rates of fare will reach a point where the economic law of diminishing returns will set in and where there will be a loss of car riders. Because the man who must ride and on whom the company loses money will be with you always. The man who can walk will have a disposition to walk as fares go up. I think that will probably be different in every city or in various cities.

Mr. WARREN. What has been your experience?

Mr. CULKINS. On the $5\frac{1}{2}$ and 6-cent rates there was apparently no appreciable loss. Of course, you will understand that it is a little difficult to reach any conclusion, because this is just at a period when the soldiers and the workmen are coming back, when people are returning. We do not know how many are returning; we do not know

what we ought to get. On the 6½-cent fare so far this month, the increase in receipts is 31.7 per cent. Now, that would indicate that we are getting a little more than—the increase is 30 per cent——

The CHAIRMAN. Is that an increase over——

Mr. CULKINS. Over 1918.

The CHAIRMAN. But not over the 6-cent fare?

Mr. CULKINS. No; over 1918—over last year. The previous experience of the company indicated that under normal conditions there should be an average increase of 3½ per cent every year. You see, even with the soldiers coming back it is not up to that. The excess of the 30 per cent of what your fare would actually produce is not up to that, which would indicate we are getting dangerously near the point where they are going to come together.

Mr. WARREN. Where there might be some loss?

Mr. CULKINS. Yes. But I do not think there is any doubt that there is some now; there is bound to be, of course, but I do not think it is very large.

Mr. WARREN. You think your theoretical increase, leaving out the 3½ per cent of normal increase, anyway is about 30 per cent?

Mr. CULKINS. Yes; a little over 30 per cent.

Mr. WARREN. And you are actually getting a little over 31 per cent?

Mr. CULKINS. Yes.

Mr. WARREN. So if you subtract your 3½ from that, you are getting 28.2 per cent?

Mr. CULKINS. Yes; you are getting as much as you could——

Mr. WARREN. You are getting pretty nearly as much as you could.

Mr. CULKINS. Yes.

Mr. WARREN. You would normally get 29 per cent where you are getting 28?

Mr. CULKINS. Yes. There has not been very much change on the part of the public, which probably accounts for that.

Mr. WARREN. You were at one time city auditor?

Mr. CULKINS. Yes.

Mr. WARREN. And at another executive secretary of the Chamber of Commerce of the city of Cincinnati? Do you want to say anything to the commission about the state of public sentiment about this service at cost since it has been in effect?

Mr. CULKINS. I believe that the plan appeals to the public very strongly. Of course, it is like everything else connected with this subject; many of the public do not understand it and have not been able to understand it; but wherever it is brought to their attention it seems to be popular, and I think it will be safe to say it is a very popular plan in the city. Now, just where the rate of fare would have to be for it to begin to be unpopular is a thing only experience will show, but the current comment is that the suggestion of paying for what you get does appeal to the public. And I think the best test of that is that they keep on riding.

Mr. WARREN. Do you think the reason of that popularity is the assurance that the company is not making excess profits?

Mr. CULKINS. Where they understand it. Of course, that has to be explained, and it has not been thoroughly explained. The company now contemplates a campaign of publicity in order that the public may better understand this franchise. I have explained it

to a large number of groups of our citizens, and I have never had an exception to the experience that where it was explained to them they looked very favorably upon it and seemed to be very well satisfied with the plan.

Mr. WARREN. How do you get along with the company, you as the city's representative?

Mr. CULKINS. Oh, we get along fairly well.

Mr. WARREN. If you were starting out with such an experience as you have already had with your service-at-cost franchise—if you were starting out to draw one now just as you would like it as a sort of ideal or model franchise, what changes would you make from those you have described in the Cincinnati franchise?

Mr. CULKINS. I do not know that I would make any fundamental changes. I think there is a weakness in our ordinance that the supervision is charged to the general taxpayer rather than as a cost of operation. That will always have a tendency to crab the supervision, because cities are always broke. I believe that legitimately ought to be a charge against the car rider, for the service is specifically for the car rider, and you can easily see it differentiates from every other city department.

Mr. WARREN. How about the term of franchise, if you were starting out with a new franchise?

Mr. CULKINS. Of course that is a matter of personal opinion. I personally believe in an indeterminate franchise.

Mr. WARREN. Your franchise, however, has so long to run that that question is not vital yet, if it is ever going to be.

Mr. CULKINS. Well, not until we get near to the end of it; and that may be corrected some way in the 1931 revision.

Mr. WARREN. Has the operation of this service-at-cost franchise so far resulted in any demand for public ownership or any increased demand?

Mr. CULKINS. Not any at all. I do not think there is, beyond the group which exists in every city, any very large amount of sentiment for public ownership, and perhaps less than before. Because we have said that under this ordinance you get substantially all the benefits of public ownership without any of its disadvantages. I believe if Cincinnati leaned toward public ownership they would lean first toward public ownership and private operation, because we have the experience; we own a steam railroad which is operated privately and yields about one and a quarter million dollars revenue to the city every year; so I think that sentiment would be the first. I have heard that suggested as a way of relief—that the city might own it, thereby relieving the company of that much taxes.

Mr. WARREN. I think that is all I want to ask, Mr. Chairman, but I think Mr. Culkins would be very glad, because he has really come to give information to the commission, to answer any questions of the commission, keeping in mind only that he would like to get away at 4 o'clock.

The CHAIRMAN. Have you some other witnesses upon this same question?

Mr. WARREN. We have other witnesses on the question; yes.

The CHAIRMAN. You are going to file with the commission a copy of the city franchise?

Mr. WARREN. Yes; I understand Mr. Culkins will.

Mr. CULKINS. Yes; I will as soon as I get back.

The CHAIRMAN. And Mr. Nash had some books.

Mr. WARREN. Yes; he is coming back. I see every commissioner has one of those.

The CHAIRMAN. And that book enters into a very complete description of the plan, does it not?

Mr. WARREN. Well, of the Cincinnati plan—you refer to Mr. Nash's book?

The CHAIRMAN. Yes.

Mr. WARREN. Yes; together with the ordinance. I think you will get all you want from it.

The CHAIRMAN. How long have you been commissioner of Cincinnati?

Mr. CULKINS. About two years.

The CHAIRMAN. What was your experience in the handling of street-car companies prior to that time?

Mr. CULKINS. None.

The CHAIRMAN. What was your business before that?

Mr. CULKINS. I was executive secretary of the chamber of commerce before that.

The CHAIRMAN. How long have you been a resident of Cincinnati?

Mr. CULKINS. Oh, since 1890.

The CHAIRMAN. Were you appointed or selected?

Mr. CULKINS. Appointed.

The CHAIRMAN. For how long a term?

Mr. CULKINS. Well, there is no term specified. It runs with the mayor.

The CHAIRMAN. The appointment of the commissioner is a part of this cost-of-service plan?

Mr. CULKINS. Oh, yes; the plan itself; the power—of course, the department is not part of the cost of service.

The CHAIRMAN. Did the State have a commissioner before they adopted this plan?

Mr. CULKINS. No. In 1917—which was declared invalid—there was a provision in the ordinance for the city street-railroad commission, adopting the title in Cleveland, to take charge, which was made a subdepartment of the mayor instead of the council, as in Cleveland. Then in the new charter it was made a principal department of the city with the title of director of street railroads.

The CHAIRMAN. What is the length of your term?

Mr. CULKINS. At the pleasure of the mayor.

The CHAIRMAN. What are your duties as commissioner?

Mr. CULKINS. The general supervision over the entire operation—over whatever powers outside of those three of the legislative powers the city has reserved on any electric street railway, interurban or electric union depot. If the rapid-transit plan is carried out, the director will have control of the operation of that, whether it be municipal or privately operated.

The CHAIRMAN. Are you the regulating force of the city?

Mr. CULKINS. Yes; and in addition to that I have control over the accounting of the company.

The CHAIRMAN. You have control over service, accounting, extensions—

Mr. CULKINS. Not extensions, except as to advise and recommend to the council.

The CHAIRMAN. To what extent do you regulate the rates?

Mr. CULKINS. They are automatic.

The CHAIRMAN. Taken care of in the contract?

Mr. CULKINS. Taken care of in the contract.

The CHAIRMAN. Are your orders valid before they are approved by the council?

Mr. CULKINS. Yes; the council has nothing to do with the orders issued by the department. My orders are issued directly to the company, and they are enforceable.

The CHAIRMAN. Has the company the right of appeal to the courts?

Mr. CULKINS. No; it has the right of appeal first to me and then the right of appeal to the court, but the only defense they may offer is that the amount allowed in the budget is insufficient to carry out the order.

The CHAIRMAN. Suppose you made an order affecting the service, would they have the right of appeal from that?

Mr. CULKINS. Not except on the ground that to improve the service as required would cost more than they were allowed in the budget.

The CHAIRMAN. Then you are permitted to make any order you please so long as the cost does not exceed the amount fixed in the budget?

Mr. CULKINS. And have authority to increase the budget if necessary to cover it. It amounts to practically absolute authority.

The CHAIRMAN. Well, that is some power.

Mr. CULKINS. That is some power. Well, that is the thought of the ordinance, Mr. Chairman, because the city allows the company to retain its reserve that it reserves to itself, and to charge whatever may be necessary to do that—that it reserves to itself to say how much this shall be.

The CHAIRMAN. How large a force have you under you?

Mr. CULKINS. Three inspectors, an accountant, chief clerk, and stenographer; not a sufficient force.

The CHAIRMAN. What are the duties of the inspectors?

Mr. CULKINS. They inspect traffic, inspect equipment generally and whatever may be necessary, under instruction, and, of course, most of their time is required to make traffic checks and determine what improvements may be necessary in the service, or to make any investigation that may be necessary.

The CHAIRMAN. You have one accountant?

Mr. CULKINS. Yes.

The CHAIRMAN. Is that enough to pay close attention to the work?

Mr. CULKINS. Well; of course he puts in all his time. The company furnishes an office adjacent or adjoining their accounting department and—

The CHAIRMAN. How is he selected?

Mr. CULKINS. Appointed by me.

The CHAIRMAN. Must he be confirmed by the council?

Mr. CULKINS. No.

The CHAIRMAN. How are the inspectors appointed?

Mr. CULKINS. They are civil-service appointees.

The CHAIRMAN: You have nothing to do with it?

Mr. CULKINS. Except that I requisition the civil service for an eligible list and make the appointments from it.

The CHAIRMAN. To what extent do you regulate the accounts of the company?

Mr. CULKINS. Under the ordinance the right is reserved to object to any voucher, to have access to all the books and records of every kind and description, and it is practically a control over the accounting.

The CHAIRMAN. Do you prescribe the method?

Mr. CULKINS. No. That is described under the ordinance by the public-utilities commission of the State; which means that the public-utilities commission of the State simply advise us that they had adopted the Interstate Commerce Commission's uniform system of accounting, which we have adopted.

The CHAIRMAN. In what way is the depreciation determined?

Mr. CULKINS. There is no regular depreciation charge made now and that will not be put in until five years after the ordinance is adopted; and then it will be prescribed by the public-utilities commission of the State.

The CHAIRMAN. Is that commission making a study of the depreciation?

Mr. CULKINS. I assume they are doing it generally on the subject of depreciation. They are not making a study of our particular case. No doubt they will make a sufficient study in advance to adapt the general rules for depreciation to the local condition.

The CHAIRMAN. Under your Cincinnati plan, what is there for the State commission to do either with respect to service or rates, or accounting, or anything else affecting the service?

Mr. CULKINS. The State commissions have only two powers—that is, the State commission has a general State control over accounting of all utilities in the State, and these specific things I have referred to, which is a right that they have without its being specified in the ordinance, and to pass upon securities; and all of those rights exist doubtless without regard to this ordinance, although they are specifically provided therein. It is local control, Mr. Chairman, specifically and intentionally local control, and it is in conformity with the constitutional provision of the State granting local control to home-rule cities. There has been a decision of the Supreme Court that in Ohio the chartered cities have plenary powers in matter of all contracts of this kind.

The CHAIRMAN. Has the commission any control over the issuance of securities?

Mr. CULKINS. Yes; they must be approved by the commission as well as by the city.

The CHAIRMAN. But have you any power over the issuance of securities?

Mr. CULKINS. Yes; they must be approved by the director as well as by the commission.

The CHAIRMAN. Suppose you disapprove it and the commission allows it.

Mr. CULKINS. They would not be issued.

The CHAIRMAN. They would not be issued?

Mr. CULKINS. No.

The CHAIRMAN. There has to be joint action?

Mr. CULKINS. Yes.

The CHAIRMAN. Under the cost-of-service plan is there a tendency on the part of the company to be extravagant in its operations?

Mr. CULKINS. No; there is not. The purpose of providing this incentive, by an additional return, was intended to meet that. Then our control over the expenditures would prevent that in any event, but there has been practically no such tendency.

The CHAIRMAN. That return which you speak of goes to the stockholders and not to the employees?

Mr. CULKINS. It goes to the stockholders—well, of course it goes to the company for such purpose as they see fit to use it. The city does not dictate where it goes. The company retains that and it goes where they see fit.

The CHAIRMAN. Are the employees as efficient under that plan?

Mr. CULKINS. Yes; I think they are.

The CHAIRMAN. Have you found any tendency on the part of the employees to soldier on the job?

Mr. CULKINS. No; not a bit of that. Whether that is due to the fact that they are the same employees or to other reasons, of course it is too early in the game to determine.

The CHAIRMAN. Does it have any tendency on the part of the employees to try to secure higher wages?

Mr. CULKINS. Well, judging by the experience in cities not having the cost-of-service plan, I would say not. In fact, the wages are lower now in Cincinnati than they are in some cities that have not the service-at-cost plan.

The CHAIRMAN. What is your scale?

Mr. CULKINS. The scale is 50 cents an hour.

The CHAIRMAN. Eight hours?

Mr. CULKINS. Nine hours.

The CHAIRMAN. Is there any demand for increases now?

Mr. CULKINS. We have just closed a new contract with them.

The CHAIRMAN. And that is the new scale?

Mr. CULKINS. That is the new scale, as effective the 1st of July.

The CHAIRMAN. How long does it exist?

Mr. CULKINS. Three years—no; one year.

The CHAIRMAN. What was it before?

Mr. CULKINS. Before that it was a War Labor Board award—43, 46, and 48.

The CHAIRMAN. Will this increased wage result in an increased fare?

Mr. CULKINS. I do not know, Mr. Chairman. As I say, I am hoping so strongly that it will not that perhaps I may be a little biased. In the month of June it cost 7.54 cents per revenue passenger, but that included a large back award from the War Labor Board. Deducting that, the cost per revenue passenger was 6.75 cents. Now, with any kind of an increase in July that will be met. July and August will be the base months to determine the rate of fare on the 1st day of October.

Commissioner GADSDEN. Have you talked with the employees sufficiently to find out whether the fact that an increased wage might increase the fare would have a tendency to keep them from asking for it?

Mr. CULKINS. Well, I think it did in Cincinnati. I really think it has had an effect. I think it was an effective feature there, because they seemed to be somewhat sensitive to the fact that the public know that most of the increase is going to them and that they may reach a point where their own unions and their own fellows will say, "Now, here, this has gone far enough." That is that sentiment in their minds, without any doubt, because they have talked to me about it. The rate of wage reflects so directly on the rate of fare that there is an opportunity for the public to measure it.

The CHAIRMAN. Do you feel from your experience that this plan would tend to reduce, or at least keep in a more permanent form, the present scale of wages?

Mr. CULKINS. I would not be prepared to answer that, Mr. Chairman, because the personal equation is strong in that among the men, and because in this particular industry you find there is an individuality in every city and different characteristics of the people. While a man in Cincinnati may feel strongly, as I have indicated—and they undoubtedly do—it is pretty evident there is no such feeling in Cleveland, which has a similar franchise.

The CHAIRMAN. Is Cincinnati a large manufacturing city?

Mr. CULKINS. Yes.

The CHAIRMAN. And are the unions strong there?

Mr. CULKINS. Fairly so. Not as strong as they are in other places.

The CHAIRMAN. Is there a close relationship between the street-car organization and other organized labor?

Mr. CULKINS. Yes; they are a member of the central labor council.

The CHAIRMAN. How do the wages compare between the employees of the company and other lines of industry?

Mr. CULKINS. Well, if you regard conductors and motormen as common labor, it is higher than other branches. Probably I would say a little out of proportion upward as to other lines at this time.

The CHAIRMAN. Now, you said that the cost-of-service plan is popular in Cincinnati?

Mr. CULKINS. Yes.

The CHAIRMAN. Do you mean that plan is popular since it results in a 6½-cent fare as compared with the former franchise with the same charge?

Mr. CULKINS. No—do you mean that it is more popular at 6½ cents than the old franchise would have been at 5 cents?

The CHAIRMAN. No; both at 6½ cents.

Mr. CULKINS. Unquestionably, because they can see the time when this rate of fare will be lower. Oh, I think there is no question that an arbitrary fixing of the rate of fare at 6½ cents would have created a great deal more disturbance than has been created by this, and, in fact, there has been no disturbance on this; and I think that that is one feature which must be considered in connection with the whole feature of car riding under service-at-cost franchises—that much of it depends upon the psychological phenomena that whether a man, for example, goes and pays 20 per cent more to see a moving-picture show and thinks nothing about it, the picture shows are crowded, but if he feels half a cent or a cent going to a street-railway company is being taken away from him unjustly, his resentment will counterbalance the question of convenience and comfort.

The CHAIRMAN. When the fare was increased from $5\frac{1}{2}$ to 6 cents, were there many demands for an accounting?

Mr. CULKINS. No.

The CHAIRMAN. Or when it was increased from 6 to $6\frac{1}{2}$ cents?

Mr. CULKINS. No.

The CHAIRMAN. They were satisfied with your supervision?

Mr. CULKINS. Apparently so. In fact, I was very much surprised that there was not a great deal more of a clamor at $6\frac{1}{2}$ cents than there was at $5\frac{1}{2}$ cents. Of course, the public mind was pretty well set for 6 cents at the time the franchise was adopted, because it was known the committee had recommended it, and as an actual occurrence, quite a number of people offered a 6-cent fare to the conductor under the impression it was already in effect. They were rather set for 6 cents. I expected there would be considerable feeling expressed at $6\frac{1}{2}$ cents, but it has not appeared.

The CHAIRMAN. What is the result of your operation? You suggested, or at least I inferred from your testimony, that you would have to put in a 7-cent fare pretty soon.

Mr. CULKINS. No; I said I trust not. I was afraid we might have to. That would depend upon whether or not the increase in the new wage scale would be offset by the increase in traffic. In the month of June, $6\frac{1}{2}$ cents would have taken care of the cost of service, so we are getting just about to the point—

The CHAIRMAN. Did the population in Cincinnati increase or decrease during the war?

Mr. CULKINS. Oh, it decreased.

The CHAIRMAN. About how much?

Mr. CULKINS. Twenty or thirty thousand, I would say. The decrease in revenue passengers was about 5,000,000.

The CHAIRMAN. If you had maintained your population, would you have operated favorably on the 5-cent fare?

Mr. CULKINS. The 1917 ordinance, which is the 5-cent flat fare ordinance, was based on the experience in 1916, which showed \$100,000 margin, after paying what they call the cost of service in this ordinance, although it was not the same items, and the coal alone in 1917 more than wiped that out.

The CHAIRMAN. How long had your company been paying regular dividends on its fixed charges, according to this past year?

Mr. CULKINS. I don't know that, because they have not paid any dividends since my connection with the properties. The operating company is not the owning company. The property is leased by the Cincinnati Street Railway Co., and is operated on a leasehold, by a lease which requires a rent, equivalent to 6 per cent on the outstanding capital stock of the street-railway company.

The CHAIRMAN. Wherein does your company have anything to do with the operation of this plant?

Mr. CULKINS. I don't know that I got your question, Mr. Chairman.

The CHAIRMAN. Well, you have nothing to do with the hiring and discharging of the men for the company?

Mr. CULKINS. No; nothing at all.

The CHAIRMAN. You have nothing to do with the expenditure of its money?

Mr. CULKINS. Except that it must be kept within the budget allowance.

The CHAIRMAN. Within the budget allowance?

Mr. CULKINS. Yes—as long as it is not objected to as an improper charge.

The CHAIRMAN. Yet your supervision is not to any extent a check upon the operation of the company?

Mr. CULKINS. Oh, yes, in this way—that, in the first place, there must be no expenditures made in excess of the budget which is allowed to them.

The CHAIRMAN. Within that budget, they can do anything they like?

Mr. CULKINS. Except that we have the right to object to improper expenditures, which is done through the supervision of accounting and a constant check on the accounting.

The CHAIRMAN. Can you place any limit upon the salaries paid?

Mr. CULKINS. The question has never been raised. I would think I could to an unreasonable salary. I think it would have to be manifestly unreasonable.

The CHAIRMAN. Does the ordinance give you that power?

Mr. CULKINS. It gives the power to object to the purpose of any voucher. I would do it, if there was an increase of salary to any official which I regarded as unreasonable.

The CHAIRMAN. What is the highest salary paid there?

Mr. CULKINS. I don't recall.

The CHAIRMAN. How do the salaries go, generally?

Mr. CULKINS. Well, they vary.

The CHAIRMAN. What is the salary of the general manager?

Mr. CULKINS. I don't recall. I would have to refer to the pay roll.

The CHAIRMAN. Or the vice president.

Mr. CULKINS. As I say, I do not recall those salaries.

The CHAIRMAN. If the cost-of-service plan is extended to all of the villages of Ohio, will there be anything for a State regulating commission to do?

Mr. CULKINS. Yes; the supervision of securities—the issuance of securities, and of accounting.

The CHAIRMAN. Now, when it comes to the question of accounting, do you feel that the inhabitants of a city would be better satisfied to have that left with the city commission or with the State commission?

Mr. CULKINS. That will be a matter of personal equation entirely. It would depend upon the individual. It would depend upon their confidence in the State or their confidence in the local official. There is in our city a very strong tendency to resent outside influences; that is, they would rather have the thing done at home, if possible. Now, that sentiment might be different in other cities. I think we get a more direct action through direct control than we would get by going through the form of filing complaints and applications before the public-utilities commission, and having people taken up to the Capitol, perhaps, unless the commission elected to hold hearings in the city.

The CHAIRMAN. In this cost-of-service plan, you fixed the plan?

Mr. CULKINS. There was not an appraisalment. This particular ordinance adopted the method of valuation from the old ordinance, which was invalidated by the Supreme Court, with the exception of one item, because that had been approved by the vote of the people, and because the city did not feel that the year 1918 was a very good time to make a valuation, particularly as our commission had adopted the reproduction method of valuation.

The CHAIRMAN. Well, does that value remain the value for all time as to that basis with respect to extensions and betterments?

Mr. CULKINS. Yes; generally speaking. It is not a specific valuation. The company is to pay interest on its bonds and notes and interest on the equipment notes, the equipment notes being paid out of operating expenses, and a flat allowance for this additional investment of \$416,000.

The CHAIRMAN. That is not a real valuation there?

Mr. CULKINS. Oh, no.

The CHAIRMAN. Were you permitted to make a valuation?

Mr. CULKINS. Oh, yes.

The CHAIRMAN. Suppose you did make a valuation and found that the value of the plant was considerably in excess of the items that you have enumerated, then what would you do?

Mr. CULKINS. The company would be stuck then.

The CHAIRMAN. Would you be permitted to change the contract then, inside of three years?

Mr. CULKINS. Not unless the city elected to purchase from the company.

The CHAIRMAN. On the other hand, should it be found that the valuation was considerably less than the items you have enumerated—

Mr. CULKINS. The city would be stuck then.

The CHAIRMAN. The city would be stuck then?

Mr. CULKINS. Yes.

The CHAIRMAN. So that is a very important—

Mr. CULKINS. Yes; it is very important.

The CHAIRMAN (continuing). Question to establish a physical valuation of the property?

Mr. CULKINS. Well, in this case, it was not a haphazard matter by any means. It was established as a guide and compared with the valuation made by the public-utilities commission, which ran about \$27,000,000, several years ago. There was an agreed valuation under a previous administration of \$29,000,000, in 1912, and this valuation amounts to about \$30,000,000, and the return is about equivalent to 6 per cent on that.

The CHAIRMAN. What tribunal should make the valuation?

Mr. CULKINS. The public-utilities commission.

The CHAIRMAN. The city or State commission?

Mr. CULKINS. Well, I think the State commission would probably be the logical tribunal to make it. The city has a right, under the constitution, to purchase by condemnation, or the right under this plan to purchase by that plan, or on the valuation prescribed by the ordinance. Five million dollars of this will be wiped out before the end of the franchise.

The CHAIRMAN. Did the company express a great necessity for having the value fixed upon its present basis?

Mr. CULKINS. Do you mean to have a valuation fixed at that?

The CHAIRMAN. Upon the basis recognized in the contract.

Mr. CULKINS. I don't know that that question has come up at all, Mr. Chairman.

The CHAIRMAN. Do you believe that the city will continue to be favorably impressed with the cost-of-service plan?

Mr. CULKINS. If rates do not go too high, I think they will.

The CHAIRMAN. What will be the effect upon the public mind if the rates are put to 7 cents?

Mr. CULKINS. I do not think anybody can answer that question, because experience has been of no value. The city of Pittsburgh went to 6 cents and showed an increase in gross receipts, I think, of less than 1 per cent. The city of St. Louis showed a marked falling off on the 6-cent rate. Other cities have shown a falling off. It seems to vary in each community. It varies entirely in accordance with the temperament of the public. I do not believe that any man who sits down and figures it, when he is paying 200 per cent for everything else, believes that he is being stung if his transportation rates go up 35 or 40 per cent; but, as I said before, there is a psychological phase to this whole question that can not be overlooked. One city will agree to 7 cents and another city will shove the cars over.

The CHAIRMAN. Is there any relationship existing between the company, their employees, and the public?

Mr. CULKINS. Between the company and their employees?

The CHAIRMAN. Between the company, their employees, and the public?

Mr. CULKINS. Yes; I think so—probably a better relation than there was.

The CHAIRMAN. Do you think that improved condition has resulted somewhat from your cost-of-operation plan?

Mr. CULKINS. Yes; I do. I believe that there is a feeling that as the public generally understands it better, that they have an interest in the control of the company and its operations, and that there is going to be a readjustment whenever they are entitled to it. That has a tendency to produce that state of mind.

The CHAIRMAN. Does the feeling that the public has an interest in the control and operation of the property naturally lead to the other feeling that they should own the plant as well as operate it?

Mr. CULKINS. Not so far. The feeling has been—and I think the general feeling in our city is—that municipal ownership would be the last thing to do; that this will give them all that they would have under municipal ownership and not the obvious disadvantages that they would have. There is not so much talk about that at all. It is not a live subject in the city.

The CHAIRMAN. I believe you said that the Government operation of the railroads and the telephones might have something to do with that opinion.

Mr. CULKINS. Well, I was thinking of that.

The CHAIRMAN. I have no further questions.

Commissioner SWEET. Has your street railway in Cincinnati any outside lines? Does it control any interurban companies?

Mr. CULKINS. Well, only one line is an outside line, that is owned by the owners of the traction company. Some parts are in the city

and some parts outside; and under this ordinance they are required to operate it as a part of their regular system.

Commissioner SWEET. Does that come under your jurisdiction as director?

Mr. CULKINS. In so far as it is within the city.

Commissioner SWEET. In so far as it is within the city?

Mr. CULKINS. Yes, sir.

Commissioner SWEET. Beyond the city limits you have no authority?

Mr. CULKINS. No authority, although the question is not particularly raised on that, because you can not run a schedule to the Norwood line and change it very much beyond the Norwood line.

Commissioner SWEET. Is that interurban or extension outside of the city limits paying or running behind?

Mr. CULKINS. It is not paying. The interurban end of it is not paying.

Commissioner SWEET. Are the accounts of that company kept entirely separate from the accounts of the other?

Mr. CULKINS. They are kept separate, but they are kept in the same office. The gross receipts from that line become a part of the gross receipts under this ordinance, and the expenses of that line pay the expenses under the ordinance; so that it is handled simply as a part of the general system, although there is a separate accounting kept, because it belongs to the Ohio Traction Co., which is the owner of the Cincinnati Traction Co.

Commissioner SWEET. The people of the city then, in one sense, are losers by reason of having this outside line?

Mr. CULKINS. Yes; the car riders are.

The CHAIRMAN. Yes.

Mr. CULKINS. Although there is, of course, a great part of the community population of the city, some of them actually within the city limits—others are within the economic community—who would necessarily be served by an extension, even though this did not exist; and that was why it was included, because it would doubtless have to furnish service to them, and, like all long extensions, you would run a pretty good risk of having a losing line. Many of them are losing, because we have very many long hauls in the city which are losing lines.

Commissioner SWEET. And there might be a necessity for whatever might be directly lost in money, in the fact of bringing the business into the city?

Mr. CULKINS. Yes.

Commissioner SWEET. It would be a benefit to the merchants?

Mr. CULKINS. Unquestionably the community would get the benefit of it.

Commissioner SWEET. Were you appointed by the mayor absolute, or did it have to be confirmed by the council?

Mr. CULKINS. By the mayor.

Commissioner SWEET. He has the power of removal?

Mr. CULKINS. At any time.

Commissioner SWEET. Have you the commission form of government in Cincinnati?

Mr. CULKINS. No. We have a council-and-director plan. We have a council representative from each ward, and six at large, and the

mayor appoints the—he has the general appointing power. The council is limited to legislative duties. There is a director of service, a director of safety, and a director of street railways, which the mayor appoints.

Commissioner SWEET. Just one from each ward, and then six at large?

Mr. CULKINS. Yes.

Commissioner SWEET. And then one joint body?

Mr. CULKINS. One joint body.

Commissioner SWEET. What was the condition of the street-railway companies that led to making this change?

Mr. CULKINS. Well, the franchise was open for revision. It came about logically. It was the time to revise it.

Commissioner SWEET. I understand that. But was it, like other companies throughout the country, recognized to be in rather bad financial condition?

Mr. CULKINS. There is a question about that. At the time this revision was passed it was costing three-quarters of a cent more to carry each passenger than was received.

Commissioner SWEET. That was well understood in the community generally?

Mr. CULKINS. I think so.

Commissioner SWEET. What did the company do, if anything, to make the public aware of its actual financial situation?

Mr. CULKINS. There was nothing done beyond these statements to the council. It issued a booklet, which was given to the council, and very widely published in the newspapers—general newspaper news publicity, not any paid publicity.

Commissioner SWEET. Giving a statement of the—

Mr. CULKINS. A statement of its condition, the financial condition, and the reason therefor, and why it was necessary to have an increased rate of fare in order to live.

Commissioner SWEET. Did the council select any auditor or expert to go to investigate and see whether that was correct?

Mr. CULKINS. Not other than my department.

The CHAIRMAN. Your department had not been created then, had it?

Mr. CULKINS. Oh, yes.

Commissioner SWEET. You had been appointed before that?

Mr. CULKINS. Oh, yes. I had been appointed the previous year, on the 1st of January, and the department was changed from a sub-department of the mayor to a principal department of the city.

Commissioner SWEET. And an accountant employed by you went over these figures to see whether they were correct?

Mr. CULKINS. Yes.

Commissioner SWEET. And was that understood by the public?

Mr. CULKINS. Yes.

Commissioner SWEET. There had not been any serious dispute?

Mr. CULKINS. Oh, not at all. During the public hearings I think one or two came in and suggested that outside accountants might be brought in, or that outside experts be brought in, but nothing very serious.

Commissioner SWEET. No other public sentiment demanding that?

Mr. CULKINS. No.

Commissioner SWEET. At that time, at the time the change was made and immediately prior thereto, had the company been able to sell its bonds or induce any new capital to become interested in it?

Mr. CULKINS. It had not been able to do that for some time.

Commissioner SWEET. Has it been able to do it at all since?

Mr. CULKINS. Not since. As a matter of fact, immediately after the passage of this ordinance there was a suit filed to test its validity, and that was only decided a little over a month ago. The superior court sustained the validity of the ordinance.

Commissioner SWEET. Is there an appeal from that?

Mr. CULKINS. No appeal was taken. The time has elapsed in which an appeal might be taken.

Commissioner SWEET. So now you regard that as conclusive?

Mr. CULKINS. Yes. Now, they can go ahead with things they might have done some years ago, if it had been possible.

Commissioner SWEET. I take it from what you have told us that the sentiment of what might be called the more intelligent people of Cincinnati is distinctly favorable to this change.

Mr. CULKINS. I think so.

Commissioner SWEET. And that from what you might call the less intelligent portion of the community there has been no complaint?

Mr. CULKINS. There appears to be practically none.

Commissioner SWEET. Have you had any jitney opposition there?

Mr. CULKINS. No; none whatever. The jitney was attempted in Cincinnati some years ago, and the public just ignored it. A man would stand waiting for a street-car, and when a jitney rode by ready to pick him up and take him down to the station, he would let the jitney go by and take the street-car. There are none there now at all.

Commissioner SWEET. How do you account for that, when you have heard such testimony as we have heard this morning?

Mr. CULKINS. I do not. It is a question of temperament. In this whole transportation industry, you can not tell what any particular city is going to do, or know anything about it. They just don't want them in Cincinnati, and they don't like them.

Mr. WARREN. That was before the cost-of-service plan was adopted?

Mr. CULKINS. Oh, yes. There has not been anything since that.

Commissioner MEEKER. Are not your street-cars rather unusually efficient instruments of transportation?

Mr. CULKINS. Well, we would like to think so. I think they should be more efficient than they are.

Commissioner SWEET. Is there any difference between your cars and those used by the Bridgeport Co., so far as you know?

Mr. CULKINS. I don't know what kind they use in Bridgeport. The later type of cars are very modern cars.

Commissioner SWEET. The pay-as-you-enter car?

Mr. CULKINS. A pay-as-you-enter car. We have some old antiquated equipment, and that will be got rid of very soon now. They are building 105 new cars now to take the place of a lot of single-truck old-type cars that are obsolete. Then we are operating some open cars which, under the State law, will be discontinued this year, the old running-board type of cars.

Commissioner SWEET. Do you use what they call the safety car?

Mr. CULKINS. No.

Commissioner SWEET. The one-man safety car?

Mr. CULKINS. No; we are investigating that. They have a double trolley in Cincinnati, and the question was whether they could be operated there. That is a matter which is being investigated now.

Commissioner SWEET. You use the overhead trolley wire?

Mr. CULKINS. Two of them—the double trolley.

Commissioner SWEET. Yes; two of them.

Mr. CULKINS. Yes.

Commissioner SWEET. What sort of power do you use?

Mr. CULKINS. Electricity.

Commissioner SWEET. What is that?

Mr. CULKINS. Electricity.

Commissioner SWEET. I mean how is it generated?

Mr. CULKINS. The company generates its own power.

Commissioner SWEET. It has a power plant?

Mr. CULKINS. It has a power plant; yes.

Commissioner SWEET. Does it buy any of its power?

Mr. CULKINS. Very little.

Commissioner SWEET. Does it use coal in the generation of current?

Mr. CULKINS. Yes, sir.

Commissioner SWEET. I am a little surprised at what you say with regard to no new capital being invested. Under this plan, now, there is practically a guaranteed return on the investment?

Mr. CULKINS. Well, I do not know that I made it clear that this plan has only been in operation since last October, and that up to a few months ago it was under attack in the courts.

Commissioner SWEET. I understand.

Mr. CULKINS. Of course, you would not be able to issue any capital as long as the ordinance was under attack.

Commissioner SWEET. That is very true. But from what you say, it has been a couple of months or so since the decision was rendered.

Mr. CULKINS. About that; yes.

Commissioner SWEET. Is there a crying need of new capital now?

Mr. CULKINS. Yes; there is a need for new capital.

Commissioner SWEET. But it is a fact, as I stated a moment ago, that, under your statement, there would be practically a guaranteed return on the investment?

Mr. CULKINS. It would be a guaranteed return, unless eventually a rate of fare would be reached that would not produce increased revenue. That is on the knees of the gods. Nobody knows whether that will happen or not. That would be the only contingency that I can see that would prevent this from being substantially a guaranteed return.

Commissioner SWEET. Is there any difference in the different classes of expenses to which the gross returns should be applied; for instance, if there should be a falling off of business so that your gross revenues should not be allowed to take care of the expenses, including fair interest upon the investment?

Mr. CULKINS. That has been provided for in the ordinance by the method and arrangement of distribution of the gross receipts: A, operating expenses, including taxes and depreciation.

Commissioner SWEET. Yes.

Mr. CULKINS. B, rental of leased lines; C, what is called the reducible debt—that is, \$5,000,000 of bonds, notes, etc., that will be wiped out; D, return on new capital; E, \$416,000 further flat return allowed to the company; F, the city's \$350,000 franchise tax; G, working capital, if any; H, reserve fund.

The result of these two months will show whether or not it is necessary to raise fares in order to produce all of those items. So far, it has not been.

Commissioner SWEET. Including the reserve fund?

Mr. CULKINS. Yes. Of course, the reserve fund will be an overflow of that.

Commissioner SWEET. So that, if there should be a slight falling off—if there should not be quite enough revenue, the first thing to suffer would be the reserve fund?

Mr. CULKINS. Well, of course, the reserve fund would—

Commissioner SWEET. In other words, that might get nothing?

Mr. CULKINS. Yes; it would get nothing on that until there was more than enough to pay for the cost of service.

Commissioner SWEET. Then, the next—

Mr. CULKINS. Would be the working capital, if any.

Commissioner SWEET. Return on the capital originally invested?

Mr. CULKINS. No; the next would be the city's franchise tax. Just as it is now, the money has not been sufficient to come all the way down; of course, when the reserve fund is once established those deficiencies will be taken out of the reserve fund; and that is just the point now. For the first two months of the ordinance there was not sufficient to pay all of these items.

Commissioner SWEET. Yes.

Mr. CULKINS. Therefore, the fares won't do, and they will have to go up. Unless in the months of July and August there will be a sufficient amount of money received to pay from A to F, inclusive, fares will have to go up. If there is a sufficient amount of them, and there is not going to be a cent left for the reserve fund, the fares will not go up, but the city franchise tax will be lopped off first. That, of course, is cumulative, and must be paid when there is money with which to pay it.

Commissioner SWEET. The company, I suppose, like most other companies, had to issue bonds?

Mr. CULKINS. Yes.

Commissioner SWEET. At what rate of interest on the bonds?

Mr. CULKINS. Five per cent.

Commissioner SWEET. And common stock?

Mr. CULKINS. No; there is no common stock provided for under this ordinance.

Commissioner SWEET. It does not say anything about the common stock?

Mr. CULKINS. Unless they are able to get it out of this incentive return—the additional return to the road for economic management. They are allowed interest on the sinking fund, on the bonds and notes, and interest on new securities, and an amount which is equal to 4.87 per cent of the outstanding preferred stock of the Ohio Traction Co., which owns the Cincinnati Traction Co. There is no return allowed on the common stock of the Cincinnati Traction Co.

or the common stock of the Ohio Traction Co., unless, from the incentive return, there is an added return to produce it.

Commissioner SWEET. I am not quite clear on that. Would the common stock come in after the reserve fund that is to be created, or come out of that? I don't quite understand it.

Mr. CULKINS. Perhaps I did not make it plain. The return allowed are these specific items.

Commissioner SWEET. Yes; I understand that.

Mr. CULKINS. Now, naturally the preferred stock would have the first claim on the \$416,000, and then only enough to pay less than the 5 per cent on the preferred stock.

Commissioner SWEET. Could the directors of the company, the management of the company, have absolute control of that and devote that to any purpose that they saw fit without your consent?

Mr. CULKINS. Oh, yes.

Commissioner SWEET. What is that?

Mr. CULKINS. Oh, yes; I assume so, although it is allowed as the return on the investment. I guess that is a matter that the stockholders themselves could work out together. They could defer it if they did not want to apply it to the dividend, if they saw fit to use it for other purposes, but the dividend is cumulative.

Commissioner SWEET. If they did not declare a dividend, it would remain?

Mr. CULKINS. I think that would be a matter between them and the preferred stockholders. I do not know anything about that. Now, the reserve fund is the reservoir into which the surplus is deposited.

Commissioner SWEET. I understand.

Mr. CULKINS. Now, if there is not any surplus, there is nothing that goes in there.

Commissioner SWEET. No. I wish you would tell us again—you explained it once, but I did not quite get a clear idea of it—with regard to that reserve fund going up to a certain point.

Mr. CULKINS. The reserve fund consists first of the \$250,000 provided by that company. It is the bumper.

Commissioner SWEET. Yes.

Mr. CULKINS. The minimum. Then into that reserve fund is placed the whole excess earnings over the cost of service.

Commissioner SWEET. Yes.

Mr. CULKINS. That is, A to F, inclusive.

Commissioner SWEET. Yes.

Mr. CULKINS. When that reserve fund reaches \$650,000, including the amount put in by the company, then fares shall be reduced a half a cent.

Commissioner SWEET. I see.

Mr. CULKINS. Then when it goes down to \$250,000 they are to be increased. Now, if you want a further explanation about the initial return to the company out of that surplus—

Commissioner SWEET. Yes; I think we might have that.

Mr. CULKINS. Now, under certain conditions all of the surplus in excess of the cost of service goes into the reserve fund. That is, when fares are more than 6 cents. When fares are 6 cents only 80 per cent of the surplus goes in, and the company retains 20 per cent. If they can bring the fares down to 5½ cents they would get 30 per cent of it,

and if they can bring it down to 5 cents or under, they would get 45 per cent.

Commissioner MEEKER. That is not clear. The return paid to the company is granted upon the valuation of the properties?

Mr. CULKINS. No; rather upon an agreement.

Commissioner MEEKER. Outstanding capital?

Mr. CULKINS. Outstanding capital.

Commissioner MEEKER. That is all.

Commissioner SWEET. Just one point further, Mr. Culkins. After going through the experience that you have gone through in Cincinnati up to date, and realizing, as I have no doubt you do, the general problem now confronting the country, and one, as you know, which is being considered by this commission with the hope of helping, in some way or other, in this serious situation, what suggestion would you make as to the proper remedy for the general situation? Do you think that it is to go to this service-at-cost plan such as you have adopted, with one or two slight changes that you have made? Would you recommend that the Cincinnati plan be adopted generally throughout the country? Do you think that would be the best remedy or do you have any other suggestion to make?

Mr. CULKINS. We do not offer the Cincinnati plan as any perfect 36, or anything of that sort, but I believe the service-at-cost plan offers an opportunity to solve the whole question; but as to whether it may require some modifications as to the introduction of some zoning system or something of that character is going to depend a good deal upon the city or the particular community. Now, many cities have not had the experience that Cincinnati has had. I personally believe it is going to be necessary for the companies to introduce every reasonable efficiency, that the keeping of fares down is of vital importance, and that these losses of traffic will not be a vital thing, provided the companies could live throughout. I think that if they could live throughout for a year, or perhaps two years, you would find that the people would become accustomed to it; because I think we all have to realize that this increase, just like that of any other commodity that is bought, is due to a great many of the things that you brought out this morning. There is apparently an inherent prejudice against the public utilities, and the feeling of the average man is that a public utility is making all kinds of money. Anyhow, and, of course, there is the fetish of the nickel, which unquestionably was built up by the utilities themselves. They were taught that the nickel was just right for a street-car ride, and you have to have a lot of sentiment to make them realize that the question of transportation is just like coffee or coal or hogs or hominy. They can not go and buy a 7-cent pound of sugar for a nickel, without running a long chance for having short weight or having sand.

Commissioner SWEET. Are you personally interested in street-railway stocks or bonds?

Mr. CULKINS. Not in any street-railway stock or bonds.

Commissioner SWEET. And you make your statement now as a citizen?

Mr. CULKINS. As a citizen.

Commissioner SWEET. And a representative of the public of Cincinnati?

Mr. CULKINS. Absolutely.

Commissioner SWEET. I think your views from that standpoint ought to have special weight.

Mr. CULKINS. I don't know anything about that.

Commissioner SWEET. Of course, the matter of education—different standards in different communities do undoubtedly exist. Every community has certain characteristics that are, perhaps, controlled by the leading citizens to some extent, and by various causes which we can not analyze definitely, but that really give communities an identity, just the same as individuals have. Now, that is oftentimes very largely controlled by the newspapers of the community; is it not? They have, perhaps, more influence than any other one thing.

Mr. CULKINS. There is no question about that.

Commissioner SWEET. What was the attitude of the newspapers in Cincinnati on the question?

Mr. CULKINS. The newspapers have all been favorable to the plan. I attribute that very largely—the lack of loss of short haul—to the fact that the newspapers have not been unfavorable. If the newspapers had given the impression to the public that this was not right, the ordinary man would have said, "I won't do it; I will walk first."

Of course, there is another thing that should be borne in mind in connection with this, because, as you get away from the nickel, your problem becomes greater: Your communities also differ in their local characteristics. I do not mean the sentiment of the people, but in the characteristics themselves. For example, Cincinnati has long lines, long hauls. It has low density of traffic. Other towns, like Cleveland, for instance, and Detroit, have high density of traffic. They may be perfectly able to get the service-at-cost plan to a point where they can haul passengers for a nickel and make a profit, whereas Cincinnati would be unable to do it. There is one of your problems, because the average man says, "If you can do it in one town, why can you not do it in another?"

Towns that have a great many short hauls and congested population can haul passengers at a lower rate per passenger; because, after all, that is the volume of business, just as any other line of business treats the cost of handling a unit.

Commissioner SWEET. Do you think the service-at-cost plan sufficiently elastic to adapt itself to these varying conditions in different communities?

Mr. CULKINS. It must do it, of course.

Commissioner SWEET. So it would be peculiarly appropriate then as a sort of general plan, because it would adapt itself to the needs of the community, which are quite different in the different communities.

Mr. CULKINS. I think so; and yet I think it probably is well to have in mind that, in the communities that have long expensive hauls there may be some question again of making the service on those particular lines pay a little more than their share. Of course, you are running now into a very large question—into that flat-fare question that you had up this morning, with the congestion, and so forth, with which I have not a great deal of sympathy.

Mr. WARREN. Your scale is only a flat fare?

Mr. CULKINS. Yes; we have a flat fare.

Commissioner SWEET. You have never tried the zone system?

Mr. CULKINS. The zone system was discussed in thrashing out the ordinance. I think I was the only one present to have any sympathy for the zone system when it was being discussed; but there are a great many reasons why it would have been difficult to have placed it in effect. It would have taken time to study it, and at the same time we were anxious to have the matter thrashed out as soon as possible. It was suggested not only in connection with the ordinance but the suggestion was made also in connection with the extensions.

The CHAIRMAN. Just a moment, Mr. Culkins. What is the amount of that franchise tax?

Mr. CULKINS. \$350,000.

The CHAIRMAN. And what does the railway pay for its paving obligations in that city?

Mr. CULKINS. That is supposed to take the place of the paving obligations. They are not required to pave. That goes into the public-service fund.

The CHAIRMAN. If you excluded the franchise tax and the operating cost, you would be able to reduce your fare?

Mr. CULKINS. We would not be able to reduce it, but we would be able to hold it where it is, without any question.

The CHAIRMAN. Has any consideration been given to that subject?

Mr. CULKINS. Well, there was discussion at the time the franchise was issued; but it was not seriously discussed, because it has been there so long that no power could have convinced the people of Cincinnati that to remove that tax would not have been taking the money out of their pockets and presenting it to the traction company. The city's financial system was built around it. We have the present limitation of taxes in Ohio, and the cities are all bankrupt. The taking away of \$350,000 was a matter that the council would not have agreed to in any event.

Commissioner SWEET. If they had the option of paying 7 cents for a ride, or simply paying this \$375,000 in the form of a general tax, which would be more satisfactory?

Mr. CULKINS. I think, Mr. Chairman, that the car riders, if you ever get them up to it, would begin to then understand it for the first time. Of course, there is no option in it. It is a part of the ordinance now.

The CHAIRMAN. Does the cost-of-service plan have any material effect upon the number of or the amount of the payments of judgment allowed on personal-injury claims?

Mr. CULKINS. There has not been any experience upon which to make any determination on that, Mr. Chairman. Our claim ratio is pretty low—less than 3 per cent; and I have not noticed any particular change in it.

The CHAIRMAN. Would it be convenient for you to file a sufficient number of your franchises?

Mr. CULKINS. I will be very glad to do so, or any other information that may occur to the commission. I would be only too glad to furnish it.

Mr. WARREN. Mr. Culkins, you said that the rate of wages was 50 cents an hour?

Mr. CULKINS. Yes.

Mr. WARREN. How much of an increase is that?

Mr. CULKINS. Two cents an hour over the award of the War Labor Board.

Mr. WARREN. Have you any idea what the effect would be on your rate of fare if your rate of wages went up to 62 cents an hour, and your day's work reduced to eight hours, as has just been done, according to the papers, in Boston?

Mr. CULKINS. Oh, just roughly, I would say that it would put the fare above 8 cents.

Mr. WARREN. Above 8 cents, instead of 6½ cents?

Mr. CULKINS. Yes, sir; I would say so, about.

Mr. WARREN. Do you publish your cost of service periodically?

Mr. CULKINS. We have it in the newspapers. It is not published in advertising form, but it is available to the public through my office.

Mr. WARREN. That is all, Mr. Culkins. Thank you very much. Mr. Chairman, I am going to suspend Mr. Nash's cross-examination longer, because Mr. Draper is here. He is the operating vice president of the Cincinnati Co., and I thought it might be well to hear both the Cincinnati sides at the same time.

The CHAIRMAN. Very well.

Mr. WARREN. Mr. Draper, will you take the stand?

STATEMENT OF MR. WALTER A. DRAPER.

Mr. WARREN. Your full name, Mr. Draper?

Mr. DRAPER. Walter A. Draper.

Mr. WARREN. Was I right in saying that you were the vice president?

Mr. DRAPER. Vice president of the Cincinnati Traction Co.

Mr. WARREN. How long have you been connected with that company, Mr. Draper?

Mr. DRAPER. Since 1907.

Mr. WARREN. And how long have you been vice president of that company?

Mr. DRAPER. Since 1913.

Mr. WARREN. You have heard Mr. Culkins's testimony?

Mr. DRAPER. I did; yes, sir.

Mr. WARREN. What can you add to his testimony regarding the Cincinnati situation?

Mr. DRAPER. Well, I understood that one point that was desired to be touched upon was the question of the incentive to economical operation, and knowing time was of the essence here as everywhere else, I have reduced to a few pages what I might say on that subject, if you will allow me to read it.

Mr. WARREN. I would be very glad to have you do that. Is that based on what Mr. Culkins referred to, in part, the amount of the surplus?

Mr. DRAPER. Yes; that is based on the amount which comes to the company from the amount that was left over after providing for all the other requirements, and based on what the rate of fare may be. In other words, if it is 6 cents or over, the company gets nothing.

NEED FOR INCENTIVE FOR ECONOMICAL OPERATION UNDER SERVICE-AT-COST FRANCHISES.

One of the fundamentals of the service-at-cost plan is to arrive at some figure that will represent the return to the company on capital invested. This is reached by ascertaining the present value of the property, or the actual cost of the property and allowing a certain rate of return on such value. The rigid application of this rule, however, pays little or no attention to the fact that a return on mere present value or historical value does not include any consideration for the risk originally undertaken or for the care, attention, labor, and efficiency bestowed by the company on the development of the property.

The advocate of a fixed and rigid return will say that by the very certainty of its being earned, which is often erroneously called a guaranty, the company is sufficiently rewarded and needs no other recompense for its years of effort and endeavor. It is nowadays rather easily forgotten that the property was built and developed by capital that was attracted to it by the anticipated opportunity of making more than a bare legal interest on the investment. In fact the investor himself has almost forgotten the happy days when he looked forward to the increasing value of his property with the development of the city or county it served; and as increasing costs have left an ever-decreasing margin between income and operation, it is considered the height of kindness and generosity on the part of the municipal or other government to allow a legal rate of interest on the bare bones. Ought not in all fairness an opportunity be given the investor to get a little more by efficient operation out of his money than he has risked in the development of his community than he could have gotten if he had locked it up in bonds or turned money broker?

In settlements of traction problems fixing a valuation and a return the rate is generally made as low as the lowest legal rate of interest. Six per cent is most frequently used. The original investor certainly expected more when he risked his money, and money for utilities can not be borrowed at that rate very easily now; and if a low rate is fixed in the franchise to define the minimum return the investors should be encouraged to careful and economical operation by an opportunity of receiving something more if they can earn it.

So much for the ethical side of the question. What of the practical? It is true that a service-at-cost franchise offering an almost certain return makes it more easy, or at least possible, to borrow money. But bankers have always taken into consideration not the question whether a concern can just live—just manage to make ends meet—but rather how much margin, how much over the bare living, it can make. And this question of banking and getting new money is a vital one. Not only has the question to be solved as to how street railroads are to make their operating expenses, but how they are to pay interest on borrowed money in the shape of permanent investment or bank loans.

Actual experience under the Cincinnati franchise has demonstrated that the banker begins to take more interest when he is shown that in addition to a fixed low interest rate that is practically assured the company can do even a little better by careful and attentive management. When it comes to marketing securities those paying a fixed

return of 6 per cent will not sell so well as those that have at least some show of paying a fixed return of 6 per cent and then something more. But 6 per cent is not now a sufficiently high return. If 6 per cent must be written in the franchise, then let there also be written therein that an additional 1 or 2 per cent can be earned by hard work. If the fixed return is just enough to meet the dividend or interest on a senior security, let the possible additional return go to the common-stock holder, who under a service-at-cost franchise is pretty apt to be left at the dock when the boat pulls out, because there is no room for him. And don't forget that the common-stock holder has played his part, if not the important part, in the development of street-railroad enterprises. The senior security holder is the banker. The common-stock holder is, or was, the prospector, the pioneer, the builder—the man with the vision.

Those who operate street railroads have not lost, and it is to be hoped never will lose, their ambition to operate as economically and efficiently as possible; and yet, because we are all still human, there is needed in addition to the desire to make a showing the spur of real financial benefit. Under a rigid service-at-cost franchise the company really becomes a sort of clearing house for the money it takes in. It pays the employees, then the tax gatherers, and then the senior security holders. This takes its all. Justice and good business sense dictate that there should be at least a small commission paid for all this work. It will add zest to an otherwise flat existence. Operating under a service-at-cost franchise, without some added incentive, would be a good deal like asking an old gambler to play poker for fun and not for money.

It has sometimes been said that a service-at-cost franchise with a purchase clause therein and complete city control has all the good features of municipal ownership and none of its bad ones.

I did not know that I was going to quote Mr. Culkins's language, but I think that is what he says.

This becomes true if there is an incentive to careful management in an additional and contingent return.

The Cincinnati franchise provides that when the fare is 5 cents the surplus remaining after all requirements are met shall be divided—55 per cent to the reserve fund and 45 per cent to the company. When the fare is 5½ cents the division shall be 70 per cent to the surplus fund and 30 per cent to the company, and when the fare is 6 cents the division shall be 80 and 20 per cent, respectively. When the fare is over 6 cents the company gets nothing. This plan falls short of providing a proper incentive, because if the fare goes above 6 cents there is no additional return to the company beyond the fixed minimum. A more efficacious plan would be to allow some additional return at all times—larger as the operating expense is kept down, smaller as the operating expense increases. Even as it stands the company has an incentive to operate efficiently and economically, since by keeping the fares down it will receive a bonus, which can be given the company's common-stock holders, who otherwise are cut off under the franchise like a disinherited child.

There is another potent argument for providing this incentive, and that is the tendency of the public to feel that if the company is practically guaranteed a certain return and can get no more, it will be indifferent to how high operating costs and fares may go, and

will readily "pass the buck" to the city in matters of higher wages or any other element likely to affect fares on the very comfortable theory of "Why should we care? Let the men get higher wages so long as the car rider pays."

In a recent discussion of the wage question with our employees, the main interest the public took in the matter was whether we wouldn't give in without much pressure, because it would all go into the rate of fare. In fact, some people declared that we were in league with our men to get the rate of fare up and hold it there through their asking for higher wages and our quickly granting the demand. When they were informed that it was to our interest to keep fares below 6 cents, as we would then receive an additional allowance, they saw things differently.

I have spent much time and vigorous language in advising against a certain extension to a remote suburb, but my talk was taken as all buncombe, and received with the question: "Why do you care as long as we will pay for it?" until I mentioned the fact that we were interested in a financial way by getting more money in our own hands if we kept the fare down. It is all very well for street-railway officials to argue against unwarranted expenditures on the ground that it will make the public pay higher fares, but it only puts this same public to the task of trying to find some other motive than regard for its welfare. If told that it is financially to the interest of the company, the motive is apparent, the mystery is no longer a mystery and the public is satisfied. The people have too long looked upon the utility as having no regard for their welfare to think of it at once as an unselfish, sympathetic benefactor. They want something that they can comprehend. In the Cincinnati Enquirer of June 12 appeared an editorial on a strike in one of our large cities. It contained the following language:

THE PUBLIC BE—IGNORED.

The paralysis of the public service is becoming more and more fashionable as a forcible argument for the increase of the corporation's income and the payment of wages.

* * * furnished the latest illustration of this tendency. Transportation arbitrarily was denied three-quarters of a million people because the city council had declined to amend the street-railway ordinance in compliance with the demands of the employees. The operating company, faced with requests for increased wages, promptly transferred the burden to the municipal government, which was the same as passing along the increase to the patrons of the service.

If there were, in the city referred to, a service-at-cost franchise and a clause therein providing a premium on efficient and economical management as reflected by the rate of fare, could this complaint have been penned? Moreover, would not the company have more reason to consider much more carefully the merits of the case instead of merely "passing the buck," even if it were inclined to do so?

Such an added incentive could be provided in many ways, either by dividing a surplus over requirements as in the Cincinnati franchise, or an addition of 1 or 2 per cent to the fixed minimum return. In all cases, however, it should be made to depend upon the company, not how well it is liked or the degree of Christian fortitude with which officials bear public criticism, but upon actual tangible results obtained in successful operation. The best test would be pro-

vided by fixing the added return inversely on the rate of fare, but allowing something, no matter what the fare may be.

Mr. WARREN. Mr. Draper, does your franchise have any provision for changing the measure of the scale? As I understood Mr. Culkins, it has a scale based on a flat rate of fare.

Mr. DRAPER. Yes; there is no provision for a change unless the city avails itself of the opportunity of again revising the franchise in 1931.

Mr. WARREN. There is nothing in connection with it, except by agreement?

Mr. DRAPER. No.

Mr. WARREN. The last thing Mr. Culkins said as he left—and I would like your judgment on that also—was that if the Boston wage scale, which had just been settled by arbitration at 62 cents an hour, and the Boston hours of work of 8 hours per day were introduced in Cincinnati, it would probably send the cost of service up to about 8 cents per passenger. Did you hear that?

Mr. DRAPER. Yes; I heard that.

Mr. WARREN. You think that is about right?

Mr. DRAPER. It is rather hard to estimate. I do not know what the 8 hours would mean, but I think if the fare was as high as it would go under existing conditions at the present time, it would run it to about 7.5 cents.

Mr. WARREN. If your present 6.5 cents is paying the cost of service at the 50-cent wage scale?

Mr. DRAPER. Yes.

Mr. WARREN. Do you think the 62-cent wage scale, if not affected too much by the 8 hours, would be met by the 7.5 rate?

Mr. DRAPER. I think so.

Mr. WARREN. Now, suppose the 7.5 cent rate did not meet it, or suppose the scale of wages went substantially higher than 62 cents—I believe in Chicago they are asking 87 cents, are they not?

Mr. DRAPER. Eighty-five cents, I think.

Mr. WARREN. Eighty-five?

Mr. DRAPER. Yes.

Mr. WARREN. Is there any way, then, in which you could substitute some different method of collecting the fare, or some method which would be related to the distance that the passenger rode, for example?

Mr. DRAPER. Only by amending the present franchise.

Mr. WARREN. And that can only be by agreement between the company and the city?

Mr. DRAPER. Yes.

Mr. WARREN. Do you think the method which you have of increasing the income of the company, in case of making a reduction in the rate, furnishes a sufficient inducement? How does it work out financially, in other words?

Mr. DRAPER. Financially, of course, up to the present time, it has not worked at all.

Mr. WARREN. At present it all goes into the reserve fund?

Mr. DRAPER. No; it does not even reach the reserve fund; but if it reached the reserve fund under the 6.5 cents there would not be any division at all.

Mr. WARREN. It would all go into surplus?

Mr. DRAPER. It would all go into surplus.

Mr. WARREN. At 6 cents there would be 20 per cent of the amount otherwise going into the surplus going into the treasury of the company?

Mr. DRAPER. That is true, if it reached that.

Mr. WARREN. How much that would be would depend upon your fare?

Mr. DRAPER. Yes, sir; you can not fix a rate that will be just enough to be \$20,000 too much.

Mr. WARREN. But if there is enough to bring the reserve fund up to \$650,000, then the rate automatically goes down?

Mr. DRAPER. The rate goes down. If it builds your reserve fund up to \$650,000 in a certain period, and is \$20,000 in excess on a 6-cent fare, we get \$5,000 out of it, or 20 per cent—\$4,000.

Mr. WARREN. That does not seem to be very much.

Mr. DRAPER. Well, it is not much of an incentive.

Mr. WARREN. Did you consider at all, or would you think it worth recommending, to share the savings, if there were any, between the company and employees—a saving on the budget?

Mr. DRAPER. I do not quite—

Mr. WARREN. In Mr. Culkins's testimony, the company submits the budget 45 days before the beginning of the new year. That is the calendar year, I presume.

Mr. DRAPER. Yes.

Mr. WARREN. And that budget has to be approved by the director of street railways?

Mr. DRAPER. That is true.

Mr. WARREN. He intimated that thus far, I think, you were living within the budget?

Mr. DRAPER. That is true.

Mr. WARREN. Now, suppose you get through the year with a saving of \$100,000 on that budget, would it be any more of an incentive if that amount, \$100,000, were to go to the company or to go to the company and the men, or be distributed in some other way and not go into the reserve?

Mr. DRAPER. Yes; I would say that that would be an additional incentive. We found, however, if that would be used in any way to induce the men to accept a lower flat wage in anticipation of a possible additional return, that they would not receive it very enthusiastically.

Mr. WARREN. They do not care for the contingency in it?

Mr. DRAPER. No; they want to be sure of what they get.

Mr. WARREN. They do not like to live on what was referred to here the other day with reference to some of the securities as "hopes"?

Mr. DRAPER. No; they do not care to live on what the street railways would.

Mr. WARREN. Perhaps they have been in the business too long and would not want to live on the street railway's "hopes."

Mr. DRAPER. Well, they have been in the business a long while; that is true.

The CHAIRMAN. Is that the hopes of the holder of common stock in your company?

Mr. DRAPER. The holder of the common stock has apparently no hopes left.

Commissioner SWEET. That was his attitude several years ago.

Mr. DRAPER. When?

Commissioner SWEET. Quite a number of years ago that was his attitude.

Mr. DRAPER. He had hopes then; yes. This franchise has given our common stockholders some hope. You can see how vague the hope is from the fact that if your surplus goes down to about \$20,000 in excess, they will get \$4,000 on the 6-cent fare.

The CHAIRMAN. What is the amount of the common stock?

Mr. DRAPER. \$7,500,000.

The CHAIRMAN. How much money actually went into the property from the sale of that common stock?

Mr. DRAPER. That is a little hard to tell, because of the fact that the company also invested some money in the building that is occupied by the officers.

The CHAIRMAN. Well, can you approximate the amount that went into the plant of that \$7,500,000 common stock?

Mr. DRAPER. The \$7,500,000 common stock and the preferred were both used. The preferred was sold at a discount, and the common stock practically took up that discount. I don't know—

The CHAIRMAN. This common stock is technically called the "hope" stock?

Mr. WARREN. That is about what it is; yes.

The CHAIRMAN. That is all.

Commissioner GADSDEN. Mr. Draper, you did not intend to give the impression to the commission that you think that there is anything inherently opposed to the interest of the common stockholder in the service-at-cost plan, do you?

Mr. DRAPER. No; I should say under this franchise he is given some—

Commissioner GADSDEN. But the service-at-cost plan is theoretically based upon the investment, is it not?

Mr. DRAPER. The service-at-cost plan presupposes some sort of a valuation, either made or agreed upon.

Commissioner GADSDEN. If the common stock represents real value, is there any more reason why he should not be taken care of under the service-at-cost plan than the owner of the preferred stock?

Mr. DRAPER. If it represents real value, it would have to be taken care of.

Commissioner GADSDEN. Exactly. You did not want this commission to understand that, as a general proposition, the common-stock holders in this industry had given up hope that the common stock will be of real value?

Mr. DRAPER. No; absolutely. I say our common stock has this additional interest in the building, but, so far as the street-railway business is concerned, they have not been very much encouraged in the last few years, and this franchise gives them some additional hope.

The CHAIRMAN. Does your common stock, separate from the preferred stock, ever have a market value?

Mr. DRAPER. Yes; it is sold in the local stock market.

The CHAIRMAN. What is the highest price that it has sold for?

Mr. DRAPER. I think it sold for about 52.

The CHAIRMAN. What is it worth now?

Mr. DRAPER. It is quoted at 20.

Mr. WARREN. Mr. Draper, how, under your service-at-cost plan, can there be any return on that common stock?

Mr. DRAPER. Under this plan there can be only a return on the common stock in case, in the first place, the fare can go down again to 6 cents, and then they get a share in the excess over the amount necessary to take care of the requirements.

Commissioner GADSDEN. If you could get your fare back to 5 cents your common stock would be worth some money, would it not?

Mr. DRAPER. Yes; the common stock, on \$20,000, as I illustrated a while ago, would get nearly half.

Commissioner GADSDEN. Yes.

Commissioner SWEET. If the general prices throughout the country should drop to the same level as they were in 1914, we will say, so that a nickel was worth 5 cents instead of being worth 2.5 or 3 cents, the common stock in your company would be worth more than 50 cents on the dollar, would it not?

Mr. DRAPER. It might. There is this to be taken into consideration: that if we could return to former conditions on the following scale, and we cut down the scale, there would be a much larger accumulation into the reserve fund.

Commissioner SWEET. Now, if I understand you right, Mr. Draper, your position is this: that there are certain things in the arrangement made in Cincinnati that you think might be improved, from the standpoint of the stockholders of the company?

Mr. DRAPER. Yes.

Commissioner SWEET. But I do not understand you to express any disapproval of the system under which you are operating, the service-at-cost system?

Mr. DRAPER. No; I think not.

Commissioner SWEET. But if the amendments which you think should be made were made, you would regard it as pretty nearly an ideal arrangement; is that right?

Mr. DRAPER. Well, in regard to this one thing. There are two or three other things that we would like to have different; but let me answer your first question.

Commissioner SWEET. Yes.

Mr. DRAPER. And say this—

Commissioner SWEET. Yes.

Mr. DRAPER. That this incentive, this division, that might remain after the requirements are taken care of, was one of the things that we discussed more than any other one point with the city. We insisted that there should be some consideration given, no matter what the rate of fare was; that if the rate of fare went up, it was not our fault, under this plan, but it was due to conditions, and that we were entitled to consideration with a high rate of fare, the same as we were with a low rate of fare, at least something; but in order that we might be given this spur to try to get fares down by economical operation, we recognized the fairness of getting less in case the fare was high than we would get in case the fare was low.

As to other points in the franchise, we felt that the matter of the budget is something that is a little more theoretical than we

would like to see it. It is almost impossible to anticipate as far ahead as we have to under this franchise what our expenditures are going to be.

Commissioner SWEET. But there is some elasticity in that, as explained by Mr. Culkins, is there not?

Mr. DRAPER. There is some elasticity, but notwithstanding that there is a feeling on the part of the director and city administration that, by the very fact that we are asking for an additional allowance, we are not operating quite as economically and carefully as we should, unless it does have some specific thing—take, for example, the increase in wages. Of course, you can measure that very accurately.

Commissioner SWEET. Are there any objections now that you have to the arrangement that you have made with the city?

Mr. DRAPER. None vital; no.

Commissioner GADSEN. What about the limited time as against the indeterminate?

Mr. DRAPER. We could scarcely avoid that.

Commissioner GADSEN. But if you were drawing another one. That is what Commissioner Sweet wants to know.

Mr. DRAPER. The Ohio law is not such as will allow the exchange of a term franchise for an indeterminate franchise. If it were, we would, of course, prefer the indeterminate.

Commissioner SWEET. But these matters that you speak of now by way of criticism relate to detail in the arrangement that might easily be avoided in another city, for instance. For instance, if it should adopt the service-at-cost plan, the whole arrangement with regard to the reserve fund, with regard to the various points of which the company should get a part of the earnings, could all be changed as a matter of detail, and you did try to get certain things different from what you did get?

Mr. DRAPER. That is true.

Commissioner SWEET. Now, in another city, the company might get the very things that you tried to get and failed to get, but with those details somewhat changed, you think exceedingly well of the system; is not that correct?

Mr. DRAPER. We think very well of it, with the exception of the details, which you might call local details, and which are not fundamental. For example, starting at 5 cents. While we agreed to that, that was purely and solely to try to satisfy a group that was bent on taking the matter before the people for another vote.

Commissioner SWEET. Yes.

Mr. DRAPER. The principles of this had already been voted upon at a previous election, and the only change that was made was a change really dictated by the Supreme Court, saying that we could not carry out a certain form. That was purely a local condition, however.

Commissioner SWEET. Yes.

Mr. DRAPER. That might not come up in another city.

Commissioner SWEET. So that this afternoon we had Mr. Culkins's statement representing the city, and without any personal interest in the company whatever, favorable to the service-at-cost plan; and we

have your statement, from another standpoint, so far as the general principles involved in the plan are concerned——

Mr. DRAPER. You are safe in saying that; yes, sir.

Commissioner GADSDEN. Mr. Draper, what solution to this problem occurs to you, other than the service-at-cost plan?

Mr. DRAPER. You mean a permanent solution?

Commissioner GADSDEN. Yes; of the industry.

Mr. DRAPER. The only other solution that I can see is to give the State commission such power that it can regulate fares from time to time as the necessity would require.

Commissioner GADSDEN. Do you think that is going to restore the credit of this industry?

Mr. DRAPER. It would not immediately. It would tend very largely to do so, just as the fact that this franchise was dead helped us very materially. It did not help us to finance, because the matter was tried out in the courts, but it enabled us to borrow money for certain things that we had to do.

Commissioner GADSDEN. Here is the thought that I wanted to bring out: Whether you entertained the view that some of them entertained, and testified to before the commission, that the alternative presented to the industry at this time in order to permanently restore its credit is either some well worked out service-at-cost plan or municipal ownership?

Mr. DRAPER. You say it would restore its credit?

Commissioner GADSDEN. I asked you whether you think there is any other alternative besides those two.

Mr. DRAPER. I say, if you give the public-utilities commission power to regulate rates as the necessity would require, you would restore its credit, if you were assured that it could be worked out.

Commissioner GADSDEN. Why, then, do we find companies operating in States where the public-service commissions have full powers in just as bad shape as the others?

Mr. DRAPER. Well, as I say, because it does not work out. The theory is all right, but it is pretty hard to get at in practice. If you fix something that is automatic, as the cost-of-service plan, then you have it settled. You do not have to depend upon a human agency at all.

Commissioner SWEET. But the important element in this, which everybody agrees to, is public approval. If the people of Cincinnati were not favorable to this scheme, it is easily conceivable that your income might have failed to show any increase of gross revenue by making an increase of fare. The feeling, as in some other places, might have been such as to fully offset the increase in the gross revenues that might be expected from an increase of fare; is not that true?

Mr. DRAPER. That is true.

Commissioner SWEET. So that public sentiment has a great deal to do with it, has it not?

Mr. DRAPER. It has. In our case, we were very careful to give the public and those who were authorized to secure information the fullest possible opportunity that they could have.

Commissioner SWEET. Don't you think that in any service-at-cost plan there is something that appeals to the public, makes it easier

to convince the public as to the need of the increased fare, and has a tendency to allay suspicions and prejudices? Don't you think there is something in that?

MR. DRAPER. Undoubtedly. There are two things. In the first place, it appeals to them as fair, and, in the second place, the fact that the city can not only control the situation, but can come in and determine what the situation is, appeals to them.

Commissioner SWEET. Yes.

MR. DRAPER. That was our experience in conducting the negotiations.

THE CHAIRMAN. Are you familiar with the effect that the war has had upon the rates of service of similar utilities in European countries?

MR. DRAPER. No; I am not, Mr. Chairman.

THE CHAIRMAN. You have said that you favor the cost-of-service plan with a few modifications. One of them which you have emphasized is that the city has real control over the management and supervision of the industry. What is your relation to Mr. Culkins?

MR. DRAPER. Our relations with Mr. Culkins are very friendly. He has been in public life in Cincinnati for a good many years, and he had the confidence of the people at large before he took the position. He conducted negotiations in the second revision. First, as I explained before, by reason of the fact that it was declared unconstitutional, and having to work it out, he became thoroughly familiar with it, and giving pretty full information on it to the public, they felt that it was fair, and it started us off on the right basis.

THE CHAIRMAN. He has as broad powers as those usually enjoyed by State regulating commissions, over both your service and other matters?

MR. DRAPER. Yes; broader powers than our State commission has.

THE CHAIRMAN. Now, of course, in view of the close relationship existing between you and Mr. Culkins, and the fact that he is a broad-gauge man, you are getting along all right. Let us suppose, for a moment, that you had a man in there who preferred to play politics and made orders affecting service and the maintenance of streets and repairs and equipment and things of that kind, which would be very burdensome to the company, and be more or less exasperating; then how would you get along under that cost-of-service plan?

MR. DRAPER. It would not be very burdensome on the company. It would be burdensome on the car rider. I do not think anybody could dare do that. He might make it disagreeable for you; he might make you work 24 hours instead of 18, and insist on a lot of information that was not necessary, but he would not dare do anything that is going to add to the burden of the passengers.

THE CHAIRMAN. In other words, his responsibility would be to the public and not to the company under this plan?

MR. DRAPER. Absolutely.

THE CHAIRMAN. So that it would not make any difference, would it—

MR. DRAPER. Well, there is a dividing—

THE CHAIRMAN (continuing). How costly the service would become, the man who had invested his capital in the company would be secure at all times?

Mr. DRAPER. Yes; if the base on which you make the rate and on which you provide for purchase represents the amount that he has invested in the property.

The CHAIRMAN. None of the surplus that is accumulated from operation can in anywise go to officers of this company? That goes to the stockholders?

Mr. DRAPER. Not necessarily. The company itself has to dispose of that. That is a corporate matter of its own.

The CHAIRMAN. Have you found any tendency on the part of employees to lay down on the service since you adopted the new plan?

Mr. DRAPER. You mean trainmen or the higher-up employees?

The CHAIRMAN. No; trainmen—employees in the shops and cars.

Mr. DRAPER. No, sir; we have not. And I will say that we have not found any tendency of that sort all the way up the line.

The CHAIRMAN. Do you believe that under this plan you will get just as high quality of service as you will under the plan where the employees are largely subservient to the management and must do as directed?

Mr. DRAPER. He is still subservient to the management. The city does not attempt to dictate in any manner of form whatever between us and our employees, and the employees, I think, will continue to do the best they can, just as they always have, or better.

The CHAIRMAN. Is there anything in the contract which prevents an employee from striking?

Mr. DRAPER. Not in this contract. We have in our contract with the trainmen's organization an arbitration provision.

The CHAIRMAN. Did your company really promote this cost-of-service plan?

Mr. DRAPER. It was a growth. The thing started in 1913—three years before the period for revision, when council passed a resolution requesting the Public Utilities Commission of Ohio to make a valuation of our property. The public-utilities commission then issued an order to the company, compelling us to file an inventory and appraisal. It then checked it. It checked every bit of wire and counted the bolts and measured the track and made its own valuation. It took about two years for us to make our inventory and appraisal and have the State to check it. A valuation was handed down by the public-utilities commission as a tentative valuation, and both the company and the city appealed for a rehearing. Before that rehearing could be held, the time was proceeding so rapidly that the city, desiring to go ahead with this rapid-transit line, which was a feature in the first revision, decided that if we could get together on some valuation that it would not wait for the rehearing before the public-utilities commission, and consequently there was an agreed valuation very largely based upon the valuation handed down by the public-utilities commission.

Mr. Culkins did not touch on that because he was really not familiar with the negotiations at that time.

It may be interesting to point out that the final valuation found by the company's engineers and by the public-utilities commission were practically the same, about \$27,000,000, to which an allowance was made by the public-utilities commission for superseded values, bring-

ing the public-utilities commission's tentative valuation to about \$30,141,000, and that is the basis that was used in this franchise.

The CHAIRMAN. Is it not rather an unusual situation to find the public utilities commission and the utility agreeing upon the valuation of the plant?

Mr. DRAPER. Not on the physical valuation, I think, Mr. Chairman. I think that is a matter that, if the work has been done properly on both sides, they ought to agree upon.

The CHAIRMAN. There is more or less dispute as to overhead expenses, contingencies, and other things; is there not?

Mr. DRAPER. Yes; we requested the franchise value, which they did not allow. We requested the paving value, which they did not allow, and on that subject I might say that the city hired an engineer to make the valuation, and he made a depreciated valuation of \$12,000,000. So, you see, there are discrepancies occasionally.

Commissioner SWEET. How did this physical valuation compare with your paper valuation?

Mr. DRAPER. The book valuation at that time was \$29,029,000.

Commissioner SWEET. What did that cover? Give the items.

Mr. DRAPER. That covered purely the physical valuation. In other words, the Cincinnati Street Railway Co. is the company that built this property and leased it to the Cincinnati Traction Co. in 1901. The capital stock of the Cincinnati Street Railway Co. in 1901 was \$18,738,950, which historically represents money that went into the property. We can trace it very carefully to show that was the real value, and that was recognized by the city when it approved the lease from the old company to the present operating company.

Commissioner SWEET. Yes.

Mr. DRAPER. Taking that as the basis, and then taking the amount that we have expended on the property ourselves, dollar for dollar—not the securities issued to provide money, but the money that went into the property—it brings it up to \$29,029,000. Now, adding to that what we are entitled to, the cost of procuring that money, because you can not go and get a hundred cents on each dollar invested, that would bring it very nearly to the valuation that was found by the public utilities commission and by our own engineer and put in the franchise.

Commissioner SWEET. That is about \$30,000,000?

Mr. DRAPER. About \$30,000,000.

Commissioner SWEET. What was that \$416,000 that you spoke about, and which Mr. Culkins spoke about, too?

Mr. DRAPER. The \$416,000 is a little less than the amount necessary to pay the 5 per cent on the preferred stock—\$8,500,000 preferred stock. The money went into the property, but the city, when it came to go into the whole matter, decided that this interurban line that Mr. Culkins spoke of a little while ago—he did not treat that fully—should be brought in as a part of the city proper. The reason it did that was because that line, under this franchise, was within the city. Within the city, including the former villages that were annexed to the city under this old franchise, it was entitled to charge a 10-cent fare. We had voluntarily reduced the fare somewhat, but the city wanted the same rates of fare for these communities which had been taken into the city as for the rest of the city. So, at that time, this interurban line was making a little money, but

inasmuch as the city wanted to bring it in as a part of the city proper and reduce the rate, we did it in order to get the whole thing cleaned up at that time, which reduced the earnings on that property to a point where we did lose money, but that was on account of the fact that we extended the city fare zone out to include these annexed villages.

Now, the \$416,000 was arrived at in a peculiar way. In cleaning the whole thing up, \$425,000 was the amount that should have been allowed to take care of preferred stock. The amount of money that the Mill Creek Valley line lost in the year that we put in this reduced rate of fare was \$9,000, and some of the very careful negotiators on the other side said, "Well, we are not going to separate that loss, so we will take it off for \$425,000." That accounts for that unusual figure.

Commissioner SWEET. Well, how were you to pay the \$425,000 before the \$9,000 was taken out to meet the interest on the preferred stock?

Mr. DRAPER. That was to come from the operation of the property, the same as any other.

Commissioner SWEET. As in any other instance?

Mr. DRAPER. Yes.

Mr. WARREN. It was a part of the return on the investment.

Mr. DRAPER. That is the return before the \$350,000 for the city.

The CHAIRMAN. From the standpoint of operation, what is the substantial difference between the cost-of-service plan and public ownership and operation?

Mr. DRAPER. The essential difference is that you have a group of men—employees—operating the property that have had experience. As far as operation itself is concerned, I think a private company can always operate more efficiently and economically than a city administration, which is subject to change, and however well the city affairs are conducted, it is always subject to political influences.

The CHAIRMAN. Do you believe that this plan will naturally lead to government ownership in Cincinnati?

Mr. DRAPER. I do not. I think it tends the other way.

The CHAIRMAN. Suppose the rate should be increased to 7 cents; then what would be the effect on the public mind?

Mr. DRAPER. If the rate is increased to 7 cents, it may be necessary or advisable to go a little more in detail, so far as the figures are concerned. They have not asked so far for details. They are satisfied with the showing that we have made and by the increase that they know of. In other words, the rate to our men, the trainmen, a year ago last April was 30 cents. It was increased to 48 cents by the award of the War Labor Board, and the same proportionate increase, as in all other awards of the board, was allowed to the other employees. The people, knowing about that, could easily see that an increase of practically \$1,000,000 a year in our pay roll made higher fares under a plan of this kind necessary.

There is pretty full and free publicity of the operation of the company's property right along, and there is a feeling in Cincinnati that is often voiced in public meetings and otherwise that they want service, and as an evidence of how they feel, during the war the Fuel Administration ordered us to install the skip-stop plan, which we did. When the treaty was signed, although the President has not

yet made the proclamation of peace, the people said, "Now, the war is over; let us abolish the skip-stop plan." There was considerable argument pro and con, and they said, "If it was well for us to save \$68,000 in coal and something like \$25,000 or \$30,000 in other incidentals during the war, it is just as well for us to save that now that the war is over." But the people said, "No; if we are paying a higher rate of fare, and are willing to pay for the service, we ought to get the kind of service that we want." That was the expression that was used.

The CHAIRMAN. What has been done during the war to keep up your maintenance?

Mr. DRAPER. We have kept up our maintenance, except the streets. As anybody else, we could not get the rail or materials. Neither the city nor ourselves could do any work in the street until this year.

The CHAIRMAN. Have you run up a large item of deferred maintenance?

Mr. DRAPER. We are doing more work in the streets this year than we have in several years past in any one year.

The CHAIRMAN. Are you able to get that out of your operating revenues?

Mr. DRAPER. Yes; all of that is in the budget, with the exception of about \$70,000, which we expect to save on some other items.

The CHAIRMAN. Have you kept your cars well repaired?

Mr. DRAPER. Our cars are in very fair shape, except about 180 small-truck cars that we are going to abandon as soon as we get the 105 new cars.

The CHAIRMAN. Are you purchasing new equipment?

Mr. DRAPER. Yes; we are adding 105 cars to the total.

The CHAIRMAN. How much will that add to your capital account?

Mr. DRAPER. It will add \$1,200,000, at 6 per cent.

The CHAIRMAN. Have you worked out any economies in operation?

Mr. DRAPER. Yes. We have attempted some rerouting, which we expect to put through, and we have also started all the way down the line, as far as the employees are concerned, toward getting more and efficient help now that the wage is such as will attract the better class of men in the service, and we are adopting a great many efficiency plans, such as street railways do when they can and which everybody had to drop during the war.

The CHAIRMAN. What do you expect to save by the rerouting scheme?

Mr. DRAPER. Well, by the rerouting scheme we will probably save about \$100,000 a year.

The CHAIRMAN. Have you discussed the one-man car?

Mr. DRAPER. Mr. Culkins has. We have not.

The CHAIRMAN. What is your idea upon that question?

Mr. DRAPER. We are peculiarly located in Cincinnati. In the first place, we have hills and narrow streets in excess, I think, of probably any other city, unless it be Pittsburgh or Kansas City, and we have three inclined planes over which we operate three different lines. Those inclined planes can be operated only so frequently; you can not make closer headway than a certain headway, necessitating our using larger units instead of smaller units. In addition

to that, the congestion in the downtown district, with the narrow streets, is such that we have not so far found that we could, in our opinion, save money by going into a smaller unit and more frequent operation than by having the larger units and not so close together.

The CHAIRMAN. As I understand it, you make these one-man cars?

Mr. DRAPER. Well, the Cincinnati Car Co., an affiliated company with us.

The CHAIRMAN. Are you able to make any economies in your overhead expenses?

Mr. DRAPER. No much. The tendency, of course, all the way through the salary list is toward increasing the pay. None of the officials of the company have had any increase in pay. It is necessary to increase the clerks and bookkeepers and people in the accounting department and others in the general office, as well as outside, which has made it impossible to reduce the overhead expenses very much.

The CHAIRMAN. That is all.

Mr. WARREN. What is the gross operating revenue, roughly, Mr. Draper, of your company?

Mr. DRAPER. In 1918 it was about \$5,250,000.

Mr. WARREN. How many passengers did you carry in that year?

Mr. DRAPER. Pardon me just a moment. And for the present year, our estimates, considering the increase of 7 cents, it will be slightly under seven million.

Mr. WARREN. And how many passengers did you carry, roughly?

Mr. DRAPER. We carried about 106,000,000 last year. That is, revenue passengers, and about 35,000,000 transfer passengers.

Mr. WARREN. The powers of your commission in Ohio are not very extensive, are they?

Mr. DRAPER. Not as far as street railways are concerned.

Mr. WARREN. Not as far as street railways are concerned?

Mr. DRAPER. No; the law is so drawn that their jurisdiction practically does not extend to street railways, unless in case of certain appeals—appeals under certain conditions.

Mr. WARREN. Yes.

Mr. DRAPER. And they have constantly refused to take jurisdiction in cases of any franchise rates. In other words, they won't step in and determine a rate, or have anything to do with rates, where they are fixed by franchises?

Mr. WARREN. So, as a matter of fact, a good many of the powers which are given to the director of street railways in Cincinnati are taken from the commission and given to him; but they do not exist anywhere, except as that agreement sets them out?

Mr. DRAPER. That is true.

Mr. WARREN. That is all, Mr. Draper.

Commissioner GADSDEN. Just a question, Mr. Draper:

The city has an option to purchase the property, has it not?

Mr. DRAPER. Yes.

Commissioner GADSDEN. In the franchise?

Mr. DRAPER. Yes.

Commissioner GADSDEN. That is practically true of all these service-at-cost plans, is it not?

Mr. DRAPER. Well, it is essential. There would be no way of the city's getting any changed condition unless it was privileged to purchase.

Commissioner GADSDEN. That is what I wanted to find out.

Mr. WARREN. That is all, Mr. Draper.

The CHAIRMAN. We will adjourn until to-morrow morning at 10 o'clock.

(Whereupon, at 4.55 o'clock p. m., the further hearing of this case was adjourned until to-morrow, Tuesday, July 22, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *July 22, 1919.*

Met pursuant to adjournment. 10 o'clock a. m.

Present: Parties as before.

The CHAIRMAN. You may proceed, Mr. Warren.

Mr. WARREN. Mr. Pellissier, take the stand.

The CHAIRMAN. You did not complete Mr. Nash's testimony?

Mr. WARREN. No; I did not. I am going to put Mr. Nash on, but I want to put on Mr. Pellissier for just one point, may it please the Chairman.

STATEMENT OF MR. LOUIS PELLISSIER.

Mr. WARREN. Your full name?

Mr. PELLISSIER. Louis Pellissier.

Mr. WARREN. You are President of the Holyoke Street Railway?

Mr. PELLISSIER. Yes.

Mr. WARREN. You are also general manager of the Northampton Street Railway Co.?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. Both Massachusetts companies?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. You are in charge of the operations of both companies; are you not?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. What sort of a franchise do you have on those properties?

Mr. PELLISSIER. Indeterminate franchise.

Mr. WARREN. Indeterminate?

Mr. PELLISSIER. Yes.

Mr. WARREN. That is a franchise during good behavior.

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. What power has the commission in Massachusetts over rates?

Mr. PELLISSIER. They have the absolute power over rates.

Mr. WARREN. It is unlimited?

Mr. PELLISSIER. It is unlimited; yes, sir.

Mr. WARREN. Is there any limitation in the franchise on what rates you can charge?

Mr. PELLISSIER. No, sir.

Mr. WARREN. That means, does it, that you can charge any rates which the public-service commission approves?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. Have you had occasion to increase your rates on either or both of these properties?

Mr. PELLISSIER. Yes; we have on both.

Mr. WARREN. On both?

Mr. PELLISSIER. Yes.

Mr. WARREN. Take the Northampton Co. first. How did you increase the rates there?

Mr. PELLISSIER. There we increased the unit from 5 cents to 7 cents.

Mr. WARREN. And that indicated a theoretical increase of 40 per cent?

Mr. PELLISSIER. Forty per cent; yes, sir.

Mr. WARREN. Was that increase taken before the public-service commission?

Mr. PELLISSIER. Yes.

Mr. WARREN. And approved by them?

Mr. PELLISSIER. Yes, sir; and approved by the public. When we went before the commission the representatives of the public were there and they told the commission that if they thought we needed a 7-cent fare they were perfectly willing to pay it; and that they needed the service and were willing to pay what it cost.

Mr. WARREN. And you put it in effect?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. When did you put it in effect?

Mr. PELLISSIER. February 1, this year.

Mr. WARREN. What has been the result? Theoretically, you might have gained 40 per cent?

Mr. PELLISSIER. Yes.

Mr. WARREN. And what did you actually gain?

Mr. PELLISSIER. Thirty per cent.

Mr. WARREN. You are still getting that?

Mr. PELLISSIER. Yes; about.

Mr. WARREN. So you gained three-fourths of the actual possibility?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. On the Holyoke Street Railway, what did you do?

Mr. PELLISSIER. There we shortened some of the zones and remained on the 5-cent fare, with the exception of a central zone that the commission decided they would increase the unit in the central zone from 5 to 7 cents.

Mr. WARREN. What was the theoretical increase there in per cent?

Mr. PELLISSIER. About 35 per cent.

Mr. WARREN. About 35 per cent?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. And what was your experience with it?

Mr. PELLISSIER. We are getting between 25 and 30 per cent.

Mr. WARREN. Between 25 and 30 per cent?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. Has that been in effect several months?

Mr. PELLISSIER. Since the 1st of January, this year.

Mr. WARREN. You say that the public was not unfriendly?

Mr. PELLISSIER. Not at all.

Mr. WARREN. Do you think that helped the immediate result?

Mr. PELLISSIER. Yes, sir; I do.

Mr. WARREN. What is your opinion as a street-railway operator of the ultimate effect of increasing fares, regardless of the attitude of the public? Suppose the public were opposed to it.

Mr. PELLISSIER. It increases the revenue.

Mr. WARREN. It increases the revenue?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. And as time goes on does it increase it very much?

Mr. PELLISSIER. Yes, sir. As time goes on that loss of traffic does come back to a large extent.

Mr. WARREN. So that in your opinion an increase in fare, even though the public does not understand it or is even hostile to it, produces some immediate increased revenue and ultimately a large increase?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. Your stock in the Holyoke Street Railway Co. was all is-ued for cash?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. And under the Massachusetts law was a premium paid in on it?

Mr. PELLISSIER. Yes, sir. For every share of \$100 there is \$120 of property behind it.

Mr. WARREN. So that the company has realized \$120 a share?

Mr. PELLISSIER. Yes, sir.

Mr. WARREN. That is all I want to ask this witness, Mr. Chairman.

The CHAIRMAN. What is the effect of this increased rate upon the short-haul traffic?

Mr. PELLISSIER. Well, in the city of Northampton the community is more or less of an interurban community; that is, the city of Northampton itself is only a city of 20,000, but the suburbs are about 3 miles away from the center. There is very little short-haul riding. There we increased the unit because of the fact that there was practically no short-haul riding and—

The CHAIRMAN. There many people are obliged to ride?

Mr. PELLISSIER. Yes, sir.

The CHAIRMAN. And the increased fare would not affect the number of passengers hauled?

Mr. PELLISSIER. No, sir.

The CHAIRMAN. What can you tell us of your experience in a more congested territory?

Mr. PELLISSIER. In the more congested territory the increasing of the unit does affect the short-haul riders to some extent.

The CHAIRMAN. To what extent?

Mr. PELLISSIER. Well, I do not know just how much, but probably as high as 10 per cent.

The CHAIRMAN. Have you made any study for the purpose of finding out how many less passengers you carry within a certain zone, a congested zone, since this fare went into effect?

Mr. PELLISSIER. No; we have not.

The CHAIRMAN. Was that 10 per cent shrinkage in the number of passengers observed immediately after the increase went into effect?

Mr. PELLISSIER. Yes, sir.

The CHAIRMAN. Has there been an increase in the number of passengers as time has gone on?

Mr. PELLISSIER. Yes, sir; it has. It has been coming back to some extent.

The CHAIRMAN. About what is the effect at the present time?

Mr. PELLISSIER. The effect at the present time, in my best judgment, is about 10 per cent, but—

The CHAIRMAN. What was it when it first went in?

Mr. PELLISSIER. Well, it was 10 per cent, but the reason of that is jitney competition. I think, if the jitneys were not allowed to operate for 5 cents where we are obliged to charge 7 cents under the ruling of the public-service commission, that it would probably not be over 5 per cent.

The CHAIRMAN. Did the jitneys take advantage of this increased charge?

Mr. PELLISSIER. Yes, sir.

The CHAIRMAN. Are there any larger number of jitneys in service?

Mr. PELLISSIER. Well, there is not a very large number, but there are probably in our town—it is not a very large town, 70,000—there are 20 to 30 operating now when there were only 1 or 2, I think, before.

The CHAIRMAN. What character of vehicle is used in the jitney service?

Mr. PELLISSIER. There are several motor buses with a carrying capacity of about 12 to 16, I think, and then there are a number of touring cars with a capacity of 5 to 7.

The CHAIRMAN. Does the commission have any control over the fare charged by jitneys?

Mr. PELLISSIER. I do not think so.

Mr. WARREN. I think not, Mr. Chairman.

The CHAIRMAN. Does the municipality?

Mr. PELLISSIER. Yes; I think the municipality can fix the rate.

The CHAIRMAN. Has it fixed the rate?

Mr. PELLISSIER. Well, in a way it has. I think in the ordinance it states that it will not be more than that charged by the street-railway company.

Mr. WARREN. Has that ordinance been adopted in Holyoke?

Mr. PELLISSIER. Yes, sir.

The CHAIRMAN. Does the 7-cent fare bring you in money enough to pay all your operating expenses and fixed charges?

Mr. PELLISSIER. Well, the combination of the two on that system, 5 and 7 cents does; yes, sir.

Mr. WARREN. That is on the Holyoke system?

Mr. PELLISSIER. That is on the Holyoke system.

Mr. WARREN. How is it on the other system, where you have the straight 7-cent fare?

Mr. PELLISSIER. On that we are doing very well.

The CHAIRMAN. I did not get clearly in my mind where you were charging the 5-cent fare.

Mr. PELLISSIER. Well, on the Holyoke system we charge a 5-cent fare on the greater part of the system, in the central zone. That is, it takes the congested section of the city—we charge 7 cents there. That has a diameter of 4 miles, and they ride for 7 cents. All the other zones are on practically a 2-mile basis, and in those zones we charge 5 cents.

The CHAIRMAN. You stated that the public approved of this increase. In what way did they make that approval manifest?

Mr. PELLISSIER. Well, on the Holyoke system they were not quite as unanimous in their approval of it as they were in Northampton; there was some objection on the Holyoke system by the public.

The CHAIRMAN. How was the approval indicated?

Mr. PELLISSIER. Well, on the Northampton system it was indicated by the representatives of the cities and towns before the commission stating that if the company needed a 7-cent fare to operate its business successfully, they were perfectly willing to pay it, that they wanted the service and they knew they could not have it without paying for it.

The CHAIRMAN. Had they attempted in some way to get an expression of the opinion of the community before they made that expression before the commission?

Mr. PELLISSIER. I presume so. These were selectmen of the town who represented their people.

The CHAIRMAN. Had they had some sort of a New England town meeting to discuss the question?

Mr. PELLISSIER. I do not think they had a town meeting but they had a meeting of some committees.

Mr. WARREN. The average New England selectman can sense the opinion of his community pretty rapidly, Mr. Chairman.

The CHAIRMAN. He keeps his ear near the ground, does he?

Mr. WARREN. Very near the ground all the time.

The CHAIRMAN. Tell us something about the sentiment of the other community on the other system.

Mr. PELLISSIER. Well, on the Holyoke system we attempted to reduce the zones to 2 miles, and of course, that immediately threw some of the people that were formerly in the inner zone into the outer zone. In that case they were obliged to pay 7 cents where they were paying 5 cents. Those people objected to that increase.

The CHAIRMAN. What is the charge from one zone into another zone?

Mr. PELLISSIER. It is 12 cents.

The CHAIRMAN. Twelve cents?

Mr. PELLISSIER. Yes; 7 in one and 5 in the other.

The CHAIRMAN. So that your trip from one zone into another is the sum of the two local charges, is it?

Mr. PELLISSIER. Yes, sir.

The CHAIRMAN. The 5-cent zone is in the congested part of the city?

Mr. PELLISSIER. No; the 7-cent zone is in the congested part of the city.

The CHAIRMAN. Where is the 5-cent zone?

Mr. PELLISSIER. On the outer zone, adjacent to the inner zone.

The CHAIRMAN. Does not that rather reverse the rule of the zone charge?

Mr. PELLISSIER. Yes; a little, I think.

Mr. WARREN. Your idea was to make the inner zone smaller and charge 5 cents there?

Mr. PELLISSIER. Yes; that was the idea, with the idea of retaining the short-haul passenger.

The CHAIRMAN. Why did you not stick to that idea?

Mr. PELLISSIER. We did, but the commission ruled against us. The people that made the objection to the 5-cent fare; or the shortening of the zone, rather, preferred a flat increase in the unit rather than shortening the zone.

The CHAIRMAN. What justification is there for charging a lower fare in the sparsely settled section of your line and a higher fare in your congested portion?

Mr. PELLISSIER. The only justification is this, that the zones of course in the outer sections are only 2 miles, so that the limit of the ride is 2 miles for 5 cents, which makes $2\frac{1}{2}$ cents a mile, but in the inner zone the diameter is 4 miles, so the possible ride is 4 miles for 7 cents, and the short ride of course is anything that it may be—several blocks.

The CHAIRMAN. What is your combined mileage?

Mr. PELLISSIER. In the system?

The CHAIRMAN. Yes.

Mr. PELLISSIER. Seventy miles in the Holyoke system and 30 miles in the Northampton system.

The CHAIRMAN. That is all.

Mr. WARREN. What the commission really did was to enlarge that inner zone and enlarge the fare upon it from 5 to 7 cents?

Mr. PELLISSIER. Yes.

Mr. WARREN. Your idea being to make it a smaller zone and charge 5 cents and preserve the short ride?

Mr. PELLISSIER. Yes.

Mr. WARREN. That is all.

(Witness excused.)

Mr. WARREN. Mr. Hedges, will you kindly take the stand?

STATEMENT OF MR. JOB E. HEDGES.

Mr. WARREN. Your full name?

Mr. HEDGES. Job E. Hedges.

Mr. WARREN. You are receiver—

Mr. HEDGES. Receiver of the New York Railways.

Mr. WARREN. How long have you been receiver, Mr. Hedges?

Mr. HEDGES. Since the 20th of March.

Mr. WARREN. Will you kindly tell the commission how you came to be receiver and what your experience has been as receiver in operating those lines?

Mr. HEDGES. Modesty compels me to withhold my real reason for appointment. I think it was the intelligence of the judge, but it was a surprise to me, because I have never been in this or had anything to do with railways before.

I was appointed on the 20th of March in an equity suit to preserve the properties of the railways, there being many unpaid debts and taxes and the actual physical operation of the road being in jeopardy and two foreclosures imminent, dependent upon the payment of approaching coupons.

Now, since then I have been personally occupied largely in learning the mechanism of it, and I have not any particular technical knowledge of the detail of it, except I have possibly some observations as this struck me as I first saw it.

When I went in there, and up to now, it takes part of the capital of the road all the time to run the road. There are no rentals being paid at all—all the rentals are in default. One of the roads, the Eighth Avenue, has applied for a severance, and an order has been entered on that and there will be a separate operation on the 1st of August.

Within a month an application before Public Service Commissioner Nixon was made for authority to charge for transfers. The law seems to be in New York that a public-service commissioner has authority over transfers, but it has been in dispute as to whether he has over a flat rate. And in the recent case in Buffalo it is analyzed both ways; some people say it just applies to the local condition under which it arose and others generally—the public-service commission counsel in New York holding that it does give the public-service commissioner authority to raise or lower the flat rate and the counsel to the city, the corporation counsel, saying, naturally, it does not. And under direction of the mayor the corporation counsel has been told to fight this rate to the last ditch, as I read it in the paper.

Mr. WARREN. This transfer?

Mr. HEDGES. This transfer—on the ground that the public is being robbed. So the issue in New York at the present moment is sustaining the order of the public-service commission providing for a paid transfer as against an admitted declaration that there shall be no money added for transportation than the 5 cents, and that that is enough. And the corporation counsel within a week took the position that this 2 cents was not justified because of excessive rentals, and therefore the public-service commissioner went beyond his jurisdiction either as to fact or law.

Mr. WARREN. As I understood you, you are not paying your rentals.

Mr. HEDGES. And so I wrote the corporation counsel and suggested that he was all right except as to his facts—that the rentals could not be a part of a composite condition because we were not paying them.

Now, there is one thing perfectly certain in New York, in my judgment—am I too discursive, Mr. Warren?

Mr. WARREN. No; that is just what I want.

Mr. HEDGES. Because I am quite ingenuous in some features of this—

Mr. WARREN. No; because you are not a street-railway man, and I want the commission to hear your experience.

Mr. HEDGES. Unless the railways get relief—and in any event it may be that this 2-cent charge for a transfer will not satisfy, and if it does not, every one of those lines will be severed from the general system except the five they own. All the rest are leased lines.

The CHAIRMAN. Except the what?

Mr. HEDGES. There are five where they have the controlling interest in the stock. The rest are all leased lines. The railway system is in default to the Sixth Avenue line, to the Fourth Avenue line, and the Eighth Avenue is gone, and it is in default to the Ninth Avenue. Now, my observation, while it is limited, is this, among other things: Even the short-haul traffic on the New York railways has been interfered with in two ways—by the difficulty of expediting their cars

on the street, owing to congested vehicular traffic, and the fact that in many cases either the elevated or the subway parallel the surface line. And therefore it is just a matter of expedition in New York—New York living on the fashion to get from one place to another before somebody else gets there.

Now, outside entirely of the question of remuneration by way of a charge, these street railways, apparently, from my limited observation, have arrived at their highest point of passenger traffic. That was reached somewhere in 1913; I saw in some figures furnished me, and that was a high-water mark. Since then, with varying conditions as to finances and otherwise, we have gone up and down during the war and after the war and are rather approaching that 1913 figure, but will never go above it probably. Therefore the logic of it is very simple. If \$2,500,000 has been added at a computed rate to the expenses of the road—assuming it is running at a full rate of car equipment and conductors and motormen—and they are running behind and do not earn even that, it is just a question of the date of burial of the road. It is not a question of rate or the earning at all, because we are not even within the penumbra of discussion of what the roads ought to earn. In some way they have got to be put in a position to have enough physical strength left to discuss how much they ought to earn finally in the reorganization. Now, that is not rhetorical intensity at all. The discussion before the public in New York has lately veered to the question of certain rentals which, to my mind, logically have nothing to do with it. These roads were organized by a combination of ownership plus rentals. Those rentals were made up at the time of what was the best guess as to what they ought to earn. Now, at the present writing, according to the way you make a computation, the rate of a rental has a rhetorical value. I do not know anything about street railways, but if you pay \$100,000 a year for rental on a capitalization of a million or a capitalization of the same property at two million, with that being possible in the growing of time, the question is not a per cent but the relationship of that rental to the value of the property by way of use. Now, this severed line of the Eighth Avenue the other day was a street-car line. When it was—

The CHAIRMAN. Was it under your control?

Mr. HEDGES. Yes, sir; it came through the New York Railways, following the old Metropolitan system there, and therefore to me as receiver.

Mr. WARREN. By a street-car line you mean a horse railroad?

Mr. HEDGES. I mean at the time it was first taken over as a horse-car line, and the agreement as to lease as a price was \$215,000—stating just from memory—plus taxes and some other charges, city charges, and an agreement that they should electrify the road. Since then the road has been electrified; some three or four million dollars have been added to it, according to the covenant, and the computation as I can make it out is twelve and a fraction per cent on all the property used by the public. The mayor, who seems to be my rhetorical antagonist at the moment, divides 215,000 into a million and lets it go at that, because $26\frac{1}{2}$ per cent has a great deal better conversational value in opposing an increase in rate than has $12\frac{1}{2}$ per cent.

Now, without any desire to express my private opinion or a desire to flaunt my suggestions, and having in mind the question the chairman asked the gentleman who was on here before me, I would very modestly suggest this: The chairman asked the gentleman how he knew that the public accepted something or acquiesced in something in this increased rate. I know nothing about Northampton or Holyoke, but I do know something about the people of New York City. New York City can get up a protest on any side of any topic overnight, with any number of people protesting, usually the same, and with any intensity of vocalizing required by the situation. Therefore there is no question settled in New York primarily, economically, or legislatively successfully until the facts are told the citizens.

My observation through some 35 years, including one unfortunate year, is that the public of New York, made up of the tremendous varieties of intelligence, will understand a fact. The average man and woman on the streets of New York will face a fact and acquiesce in it. What confuses them is when they see a discussion carried on by deductions from inferences, and then they know nothing about it.

Now, there is no disposition in New York, Mr. Chairman, I think, regarding these fares other than to believe that they have got to be increased. As I make a nonprofessional deduction, it would have been wise instead of giving, had there been authority, a 2-cent transfer charge as a tentative thing, to raise the flat rate a cent, if you are just going to experiment. I think the average person on the street looks on a cent now as a means of a fractional way to determine something. It used to be the minimum charge for something. Now, it is 5 cents. Then, I think, there is an instinct that whatever you get where you do not show a physical commodity as a result of it, you think you are entitled to get for nothing; and therefore what is in the mind of the average person—the working person there, we will say—is to get from their residence to their place of work.

Now, they are being carried across one of the Brooklyn bridges at a reduced rate, at a loss; one of the arguments there why there should not be a raise, being that a small corporation there for operating that bridge service is earning a substantial per cent, more than anyone ought to earn who has not money; the fact being that they organized a little bit of a tentative corporation, if I recollect right, something like \$10,000, just to have a corporation, so that the people in Brooklyn and New York and the operating companies could each have half of it. Therefore, in the plentitude of present-day wisdom they compute what the earnings would be by way of a dividend on a \$10,000 corporation, leaving out for mental and physical fatigue the question of whether it earned anything or whether the thing was run at a loss except for that capitalization.

Now, the question has got to be continued there. This decision of Commissioner Nixon will probably go to the court of appeals, and pending that the problem of my receivership is: Do I get enough money as receiver to discontinue the use of capital with which to operate those roads. The receivership owes to-day about a million dollars' worth of taxes, with the penalties beginning to accrue. I assumed in the neighborhood of half a million dollars of postponed necessary reproduction in the streets and maintenance of way and whatever those things may be. So that I am at the present moment

personifying the New York Railways, at least, between one and a half and two millions of dollars behind, before I get to the point of the question of whether the operating receipts meet operating expenses.

Now, that discussion is all carried on in the atmosphere which is within the penumbra of what is the best for the common people.

One side is appealing for the maintenance and the physical existence of a piece of property and the other side is appealing to what is for the interest of somebody else who does not know what it is all about and would like to, and I think is more intelligent than their advocate; and all of which is colored by the collateral discussions of municipal ownership and the proximity of elections which are never further off in New York City than 12 months.

Now I believe that the people of New York—and I do not know whether this is pertinent, I only suggest it because your chairman asked it—there will always be people in New York City who will protest against anything except an annuity. And they will protest against anything new and revile anything that is old. But the public in New York—if they understand this situation, and it can be explained to them—will make no protest against a proposition that to make a railroad live on its capital is public larceny, and they will not be a party to it. But as long as the discussion is kept within the range of who can say the most for something while doing something to them, the thing will never be solved.

Now, any specific data that the commission wants—and I feel I have taken too long—I will get for them if I can. There are two mortgages under foreclosure there now: a 4 per cent mortgage involving, as I recall it, something around \$16,000,000 or \$18,000,000, and another involving I think something like \$50,000,000 and a mortgage predicated on income. If nothing is done there the \$50,000,000 mortgage becomes a memory, because if the first mortgage forecloses and sells, the later bonds have only a conversational memorial value. If the first bonds do not sell and the public-service authorities permit the receiver to have an income, why, there should be a reorganization, otherwise all these lines will divide. That is just the observation of a layman. Later I will know more about it.

Mr. WARREN. Mr. Hedges, you spoke of the commissioner having authority to change transfers.

Mr. HEDGES. Yes; to permit a charge for transfer.

Mr. WARREN. To permit a charge for transfer?

Mr. HEDGES. Yes.

Mr. WARREN. But not an increase in fare. That of course means where the franchise itself limits the fare.

Mr. HEDGES. Yes, sir.

Mr. WARREN. Because in many parts of New York the fare is increased owing to the silence of the franchise.

Mr. HEDGES. Yes; that is, you mean where it is a part of the original contract in the franchise itself.

Mr. WARREN. And that is the situation in New York franchises generally?

Mr. HEDGES. Yes, sir. Now, the Buffalo case, as the commission probably knows, came up from a legislative ratification of the contract between the city and the company.

Mr. WARREN. And there the court held that the legislature had delegated the commission its own power to change the rate.

Mr. HEDGES. Yes. Now, the legal discussion is whether that carried anything other than the Buffalo case.

Mr. WARREN. The court having previously decided the Quinby case——

Mr. HEDGES. Yes; in which they said they had no authority.

Mr. WARREN. You spoke of the congestion in the streets as retarding and slowing up the cars.

Mr. HEDGES. Yes.

Mr. WARREN. Do you know whether there is any effort made by the municipal authorities to give the cars any right of way over the tracks?

Mr. HEDGES. Not that I know of.

Mr. WARREN. There is in some cities.

Mr. HEDGES. Yes. Every once in a while there will be an effort made to divert traffic to another street, like the widening of what is now Lafayette Place, but I know of no method generally.

Mr. WARREN. Trying to keep the traffic off the rails themselves?

Mr. HEDGES. Yes.

Mr. WARREN. That is all, Mr. Hedges. I think perhaps the commissioners would like to ask you some questions.

The CHAIRMAN. Have you had any prior experience in the railroad business?

Mr. HEDGES. No, sir; not the slightest.

The CHAIRMAN. The immediate problem seems to be to secure revenue enough to operate the railroad.

Mr. HEDGES. Yes, sir.

The CHAIRMAN. You have no immediate concern in the return upon capital invested?

Mr. HEDGES. That is not within my activity.

The CHAIRMAN. The New York Railways which you represent consist of all of the surface lines?

Mr. HEDGES. All of the green-car surface lines; not all of Manhattan Island, because there is another system called the Third Avenue system—and the Second Avenue.

The CHAIRMAN. Any connection with the subways?

Mr. HEDGES. No.

The CHAIRMAN. Or the overhead?

Mr. HEDGES. Do you mean the system I represent?

The CHAIRMAN. Yes.

Mr. HEDGES. No, sir; except this: that there were three corporations, the Interborough, the New York Railways, and an overhead corporation known as the Interborough Consolidated, which owned the stock of these two other companies; and the physical service of the two companies, the Interborough and the New York Railways, is performed in large part by the same administrators or executives with an allocated remuneration.

The CHAIRMAN. From your study do you believe that the rentals which are being paid to these subsidiary companies are fair?

Mr. HEDGES. I think, as far as I know, approximately. I do not see how that can finally be determined on that, I do not see why the New York Railways had not a right to make an original contract. I can see that there might be a desirability to change the rate. For in-

stance, the rate of return on the Eight Avenue on their capital is 12 and a fraction per cent, on the capital involved. Now, if the question of the physical life of a railroad has got to be considered exclusively as to a final reorganization earning price there will never be any solution of it.

The CHAIRMAN. If you could consolidate all the surface lines into one corporation, could you perfect such saving in the overhead and other costs as to pay your fixed charges and operating expenses on a 5-cent fare?

Mr. HEDGES. No, sir.

The CHAIRMAN. It could not be done?

Mr. HEDGES. No, sir.

The CHAIRMAN. Then that is not the solution?

Mr. HEDGES. No, sir. I think I can say with as much accuracy as a layman could give that the operating expenses have been reduced to a minimum, from necessity if for no other reason, during the past three or four years.

The CHAIRMAN. Have your wages been increased during the past year?

Mr. HEDGES. Yes, sir—not the past year, but a year ago, as I recollect it.

The CHAIRMAN. Were they increased before the War Labor Board?

Mr. HEDGES. The New York Railways did not come up during the war. I think it was just before the war.

The CHAIRMAN. What was the increase in dollars?

Mr. HEDGES. It would have amounted, if the road was running to its proper capacity, as I recollect, to about two million four hundred or two million five hundred thousand dollars.

The CHAIRMAN. What is your present scale?

Mr. HEDGES. I can not give you that from memory. I will be very glad to furnish it to you.

The CHAIRMAN. Are you operating the roads as economically as it is possible to do consistent with reasonable service to the public?

Mr. HEDGES. I think very close to the danger line. The question of accidents in New York is very serious, and they are in arrears in keeping up their paving contracts and keeping up their maintenance of right of way.

The CHAIRMAN. Have you at your fingers' ends the per cent of the operating cost—that is, the per cent which the claims paid bear to the operating cost of the railroad?

Mr. HEDGES. Do you mean the accident claims?

The CHAIRMAN. Yes.

Mr. HEDGES. No; but I can give you that.

The CHAIRMAN. Is it a large amount?

Mr. HEDGES. It is quite a substantial amount—much larger proportionately than the Interborough.

The CHAIRMAN. Do you also have paving obligations?

Mr. HEDGES. Very serious ones.

The CHAIRMAN. What per cent of the operating cost is borne by the paving items?

Mr. HEDGES. I can not give it from memory, but I will send it to you.

The CHAIRMAN. I wish you would.

Mr. HEDGES. I will be very glad to, and any other data.

The CHAIRMAN. Will you send us a statement showing the amount of claims paid, the paving obligations and other assessments made against the property?

Mr. HEDGES. Yes.

The CHAIRMAN. And work it out on a percentage basis.

Mr. HEDGES. Yes. I will say regarding the \$200,000 that was supposed to have been cleared over operating expenses in the past six months that that was exclusive of the luck—that they did not happen to have to expend \$200,000 for snow removal last year, so that up to the present writing it can literally be said that the road is running on capital expenditure.

The CHAIRMAN. Will the 2-cent transfer charge divert much traffic to the subways or the overhead lines?

Mr. HEDGES. My own judgment is that it will be appreciable. I do not know. I think that is experimental, and I do not know that anyone can tell definitely. The experts on the road figured out that there would be a falling off of 40 per cent in transfers themselves, even by an increase of 2 cents, and that that would cause people to walk or otherwise, but the slowness of the movement of the surface cars has already diverted traffic to the subways and the elevated.

The CHAIRMAN. In your judgment—

Mr. HEDGES. And I think more will go with the transfer, especially in those places where the subway approximately parallels the separate road. Take, for instance, the Brooklyn Rapid Transit. It now goes up Broadway to Fifty-seventh Street before it veers off through, going under the East River. In other words that parallels the green cars all the way to Fifty-seventh Street.

The CHAIRMAN. Will the transfer charge add to or take from the gross revenues of your lines?

Mr. HEDGES. I think, hope, and pray it will add to it.

The CHAIRMAN. What is your judgment?

Mr. HEDGES. My judgment is that of the experts who know more about it, that it will add something in the neighborhood of six hundred or seven hundred thousand dollars, as I recall the figures.

The CHAIRMAN. Will that take up the slack in your operating expenses?

Mr. HEDGES. No, sir.

The CHAIRMAN. Then you have got to have some relief other than a transfer charge?

Mr. HEDGES. Yes; there has to be a flat rate; and I think the flat rate would be less objectionable to the public in its ordinary everyday human activities, where you pay it all at once and get it off your mind than to pay it apparently in two amounts.

The CHAIRMAN. Now, you proposed a flat-rate increase of 1 cent?

Mr. HEDGES. No; I say that a tentative increase of 1 cent on a flat rate would have been a better test than a 2-cent transfer charge.

The CHAIRMAN. Do you believe that the 6-cent fare would enable you to operate the railroad satisfactorily?

Mr. HEDGES. I doubt it. I do not think it would; it would take a very great period of time with that even to approximate the payment of arrears of taxes and maintenance and things that had fallen off.

The CHAIRMAN. That would represent a 20 per cent increase in gross?

Mr. HEDGES. Yes, sir.

The CHAIRMAN. What do you think the actual increase would be on a flat 1-cent raise?

Mr. HEDGES. I do not know, sir; I have not the slightest idea.

The CHAIRMAN. No way of telling?

Mr. HEDGES. No; the only way they could tell that would be for the men in the company who have followed it to make their best guess from human experience along the developing of new lines, or where it has fallen off owing to the subway or elevated.

The CHAIRMAN. Would the 6-cent fare tend to divert a great deal of traffic to the other lines and also force a great many people to walk in the congested territory?

Mr. HEDGES. I think not so much as a 2-cent transfer.

The CHAIRMAN. It would not?

Mr. HEDGES. That is just my layman's guess.

The CHAIRMAN. What, in your judgment, is the ultimate solution of the railroad problems in New York?

Mr. HEDGES. The first step, to my mind, would be the human step of letting the public know what the facts were.

The CHAIRMAN. That is your job?

Mr. HEDGES. So far as it is not interfered with by the authorities. But I have got to persuade the authorities to tell the facts, and then between us we will tell them to the public. Now, the public will be reconciled, in my judgment, except the protesting professional minority, to any proposition that officialdom declares is the substantially just thing to do. I have a higher opinion of the public in that respect than I did a few years ago, from personal experience.

The CHAIRMAN. Well, undoubtedly you have to have the proper psychology.

Mr. HEDGES. Absolutely.

The CHAIRMAN. And that can only be secured by giving to the public the real facts, so they will understand them and believe them?

Mr. HEDGES. Absolutely.

The CHAIRMAN. And assuming that the public have the facts, what is your solution?

Mr. HEDGES. An increase of remuneration for the service rendered.

The CHAIRMAN. Do you require a reorganization of your plant if you get an increase in fare?

Mr. HEDGES. Do you mean in the manning of it?

The CHAIRMAN. Yes.

Mr. HEDGES. The only question I could see involved now would be whether the New York Railways were severed from the joint mechanical operation. That would mean the installing of power elsewhere. The New York Railways buys its power from the Interborough, and I think gets it at a cheaper rate than it could through an independent company.

The CHAIRMAN. Suppose there was a consolidation of all the surface, subway, and overhead lines; could you then operate on a 5-cent fare so as to pay operating costs and fixed charges?

Mr. HEDGES. I have not professional knowledge to know that, but I have not the slightest doubt that it could not be.

The CHAIRMAN. That it could not be?

Mr. HEDGES. No.

The CHAIRMAN. How much of a saving in overhead cost and other expenses could be made by perfecting a complete consolidation of all lines in New York City?

Mr. HEDGES. A very inappreciable amount, in my judgment, so far as my observation goes.

The CHAIRMAN. You think it would not be substantial?

Mr. HEDGES. I can not conceive of anything being more compact than it is now. I can conceive that a man may have so much to do by way of executive function that he scatters. But, as it is now, everything is made about as composite as it could be. I do not know anything about the Third Avenue.

The CHAIRMAN. There are all sorts of franchises existing in New York City, are there not?

Mr. HEDGES. Yes.

The CHAIRMAN. Different terms and different conditions?

Mr. HEDGES. Yes, sir; some of them.

The CHAIRMAN. How many of the companies are included in your system?

Mr. HEDGES. My recollection is something like 14. I think there are five owned and—

The CHAIRMAN. Do you believe that the situation would be helped some if you could have a uniform franchise for all of the railways in your system?

Mr. HEDGES. I do not believe the form of franchise would affect it.

The CHAIRMAN. I beg pardon?

Mr. HEDGES. I do not see how the form of the franchise would affect it unless it provided a living rate.

The CHAIRMAN. Then you do not think there are provisions in the franchise which are against the public interest?

Mr. HEDGES. None that I know of, sir.

The CHAIRMAN. Are there any that are against the interests of the corporation?

Mr. HEDGES. There are certain transfer points required by certain franchise provisions now where there can not be any charge for transfer.

The CHAIRMAN. How about your paving charges?

Mr. HEDGES. I think that is a burden—well, I do not know how that started, but I think that is a burden that the roads should not bear, certainly not exclusively, because what is reproduced by them for the city is not destroyed by them in their own service.

The CHAIRMAN. Would it be possible in a new franchise to eliminate that feature?

Mr. HEDGES. You can do it without a franchise.

The CHAIRMAN. Has the council the right to do it?

Mr. HEDGES. I think so.

The CHAIRMAN. The franchise is a contract.

Mr. HEDGES. Yes, sir. I think the council can contribute that if it wants to in some way.

The CHAIRMAN. Has that proposition been advocated?

Mr. HEDGES. It has been suggested in the public prints. I have never participated in a discussion, but I doubt, Mr. Chairman, during the present official situation in New York, if it would provoke other than noise.

The CHAIRMAN. There is a very considerable sentiment for municipal ownership there, is there not?

Mr. HEDGES. There is a very intense feeling for it in certain limited localities. It is being advocated in one daily publication and is advocated from the city hall up to the point of their not having any money to buy with.

The CHAIRMAN. Do you believe it would be possible for the municipality to operate the surface line on a 5-cent charge?

Mr. HEDGES. No, sir; I do not believe they could operate it within a substantial per cent of the rate private ownership can; and I make that observation with considerable conviction, because I was once secretary to a mayor in New York. It is physically impossible, in my judgment, with an unrestricted franchise—the same man being the recipient of what comes from the casting of a ballot—to administer a function unmindful of that, and that is regardless of party or anything else.

The CHAIRMAN. We have heard a good deal here the past week about the cost-of-service plan. Are you familiar with that?

Mr. HEDGES. A cost of service?

The CHAIRMAN. Yes; a cost-of-service franchise, such as they have in Cleveland or Cincinnati.

Mr. HEDGES. I am not familiar with it. I have heard it discussed, but I have not any judgment about it.

The CHAIRMAN. Then you are not prepared to discuss that as to its applicability to the New York system?

Mr. HEDGES. No, sir; but it is quite—well——

The CHAIRMAN. I have an appointment at 11 o'clock. If you will pardon me, you may proceed.

Mr. WARREN. You are not prepared to discuss it further than that you would like to see the limitation of 5 cents removed so that the rates could go up, if they are to go up?

Mr. HEDGES. I do not know anything about this other theory you mentioned, Mr. Warren, but I am confirmed in my own mind that if the rates do not go up, the roads will go out, not down.

Mr. WARREN. And that that provision of the franchise ought to be changed by some method so that the rates can be changed?

Mr. HEDGES. Yes; but I have not any fruitful opinion as to how to do it.

Commissioner SWEET. I understood you to say that you had not had previous street-railroad experience.

Mr. HEDGES. Yes.

Commissioner SWEET. You are an attorney at law?

Mr. HEDGES. Yes, sir.

Commissioner SWEET. And have been practicing for quite a good many years in New York City?

Mr. HEDGES. Since 1886, sir.

Commissioner SWEET. You have also been giving some attention to public affairs all your life, have you not?

Mr. HEDGES. All my life—and tried to officially.

Commissioner SWEET. You refer by that to your candidacy for Governor of New York?

Mr. HEDGES. Yes, sir.

Commissioner SWEET. I believe you were born in Livingston County, N. Y., were you not?

Mr. HEDGES. I came from there; my people came from there.

Commissioner SWEET. Were you not born there?

Mr. HEDGES. No, sir; I was born in New Jersey, but my father came from Danville.

Commissioner SWEET. Without going over the ground you have been over, with regard to the detail of the New York system and your present very difficult problems, in your study of public questions, your mind undoubtedly has rested frequently and with more or less care upon the question of the public utilities?

Mr. HEDGES. Yes.

Commissioner SWEET. Were you present in New York when former-President Taft appeared before this commission?

Mr. HEDGES. I was in the city, but not at the hearing.

Commissioner SWEET. He made a statement before the commission that he had taken up the general study of the subject of street railways as a member of the War Labor Board in connection with wages, and that as a war measure it became exceedingly important that the electric railways on lines over which workmen in factories doing war work were transported from their homes to the factories—that it was important that these lines be kept in operation. He also stated that wages were raised on the basis of needs—the general increase throughout the country of what we call the cost of living—and that not so much consideration was given to the ability of the railroads to pay those wages. Of course, you know as a citizen and also as receiver of these companies that wages have been raised to a very high point as compared to the prewar rates. You also know that everything that a railroad has to buy—steel, equipment of all kinds, electrical apparatus, and everything—is very high; is not that true?

Mr. HEDGES. Yes, sir; very high.

Commissioner SWEET. Now, former-President Taft took the position that something had got to be done to help the general systems of railroads throughout the country—not New York City alone, but all over the United States—to continue in operation, and that their incomes had to be very materially increased or expenses very materially reduced. He also expressed the opinion that expenses could not be very well reduced, or to any material extent, in the immediate future. He thought the purchasing power of money had been reduced and that it was a condition that had come to stay—that had some degree of permanency. Is that your opinion?

Mr. HEDGES. Only in degree. I think that the cost of maintaining these roads, the cost of living, has very largely increased, abnormally increased. I think a measure of it will continue for a period of time. I think prices are inflated as a result of the war plus an added amount imposed upon a purchaser by virtue of not knowing how much the article cost. I think we are still making the war as an excuse, and I do not think it has gotten back yet to an approach to economic propositions; but I think it will continue some time, and I think that the price of material and the price of wages have each forced the other up—whichever took the first step, it had to be responded to.

Commissioner SWEET. In matters of that kind it is very often difficult to tell which is cause and which is result, is it not?

Mr. HEDGES. Yes; they are each both.

Commissioner SWEET. But they have moved along in parallel lines to a certain extent?

Mr. HEDGES. It seems to me, Mr. Sweet, they have competed with each other for raises, with the general public standing by as the object lesson.

Commissioner SWEET. Each one affording a certain measure of justification for the raise in the other?

Mr. HEDGES. Yes.

Commissioner SWEET. You say you do not quite agree with President Taft that this situation has some degree of permanency—or a considerable degree of permanency?

Mr. HEDGES. Where I would differ, with modesty, would be as to the period of time before we begin to recover. The period of time, in my judgment, would be shortened by the courage of intellectual men in discussing things as they are; and the public will respond to that, and conditions will become more normal from an accurate knowledge.

Commissioner SWEET. I assume, Mr. Hedges, that you would not like to state exactly, or with any degree of exactness, the period that you think these conditions will continue.

Mr. HEDGES. My knowledge would not have any value.

Commissioner SWEET. Well, would anybody's?

Mr. HEDGES. According the value they placed upon their own judgment.

Commissioner SWEET. In their own minds.

Mr. HEDGES. In their own minds.

Commissioner SWEET. They might have some value, but in fact—

Mr. HEDGES. In fact, I think it is a guess, sir.

Commissioner SWEET. But this is not a guess, is it, Mr. Hedges, that unless these railroad companies that are now generally, throughout the country operated at a loss, defaulting in the payment of interest upon their bonds, paying nothing to their stockholders—unless that condition is changed, these companies are going practically out of existence?

Mr. HEDGES. They will cease to be a part of community life entirely?

Commissioner SWEET. Exactly so.

Mr. HEDGES. They will pass from the realm of actuality.

Commissioner SWEET. And whether the purchasing power of the dollar is going to be restored in six months or a year or two years is not so important for this immediate consideration as the fact that these railroad companies can not exist until the purchasing power of the dollar is restored, in your judgment?

Mr. HEDGES. Absolutely not. That is a matter of years. The life of these companies, so far as I have observed, is a matter of months.

Commissioner SWEET. So far as the question that President Taft presented is concerned, that is the real essential feature of it as applied to this situation, is it not?

Mr. HEDGES. Absolutely, the question of the period of time is the point of view and the degree of human experience the man has had in observation who utters the opinion.

Commissioner SWEET. But, so far as the railroads are concerned, they must have what we might call immediate relief in order to live.

Mr. HEDGES. Absolutely; and in New York, Mr. Sweet, it is pathetic the way the matter is discussed publicly.

Commissioner SWEET. Not only in New York but everywhere.

Mr. HEDGES. I mean wherever it is discussed. The reason is this, sir, if I may volunteer a suggestion: The discussion of the street railways, a part of the everyday life, is made the bonus of a request for advantage and public approval by giving to somebody something that some one else has paid for and claiming a reward in the next few months, usually falling in about November. And I am compelled to say with entire truthfulness, as a man from the same locality with which you are familiar, that that weakness is not entirely chargeable to any one line of political faith.

Commissioner SWEET. No; that is true. Is it not your experience, Mr. Hedges, in connection with your observation and participation in public affairs, that politicians have made a sort of football of public utilities and have frequently found it to their immediate advantage, perhaps in the way of getting into office, to bring a great many charges against public utilities that were unjust?

Mr. HEDGES. Yes, sir. I think that many of these intellectual opinions that people arrive at they reach for their rhetorical possibilities.

Commissioner SWEET. Beyond any question of doubt.

Mr. HEDGES. Yes.

Commissioner SWEET. Can you tell the commission what, in your judgment, it can do, or the interested railroads can do, to change public sentiment in that regard?

Mr. HEDGES. You are not asking now regarding some particular legislative way or legislative feature?

Commissioner SWEET. No; I think it will have to go back of that. I think the legislative measures would follow a change in public sentiment.

Mr. HEDGES. I think this, Mr. Sweet: I think the country is more and more responding to the officialdom of Washington as to an expression of opinion. I think if there should come from this commission a succinct statement that the present management and handling of these roads as between them and municipalities is resulting in plain ordinary theft—the taking of property without remuneration—it would cause people to think about it. I think the more the facts of it can be promulgated, and they come with greater force when sent from Washington—here is a Federal commission discussing a great question which goes into the jurisdiction of States as well—

Commissioner SWEET. You think that would reach the public conscience?

Mr. HEDGES. I think it would help very greatly. Now, of course, there are questions—this political question—I think you have touched on pretty nearly the sore spot very largely. It is impossible to have an accurate, wholesome public opinion when men of intellect will appeal for public rewards by an inaccurate and dishonest statement of fact; not deliberately making it but making deliverances. Now, for instance, we are discussing in New York the question of municipal ownership; that is gradually passing out of discussion. Aca-

demically, municipal ownership is perfectly sound if predicated on two propositions—I am giving my own opinion—that all people who cast a ballot are of equal status mentally and morally. There is no way, in my judgment, to get away from the logic of that, if that were the fact, because it is predicated upon that. Now it does not happen to be the fact and in the providence of God was never intended to be the fact. Now, then, we go to the further proposition: What is the duty of a thoughtful man, official or otherwise, in bridging over the gap between a fact and an intelligent but uninformed mind in coming to a conclusion?

Now, I believe—if this is not taking the time of the commission—we talk about the people and the relation of government to them: the real question is whether government is a thing to live on or under. Now what is the relation of government to an individual? Not to bribe his mind by a pretended favor. The public, Mr. Sweet, at this moment—I am speaking beyond the ultraignorant public—is yearning for a statement of fact. For 20 years facts have been gradually eliminated from the discussion of public questions in the United States, in my judgment.

Commissioner SWEET. You are speaking of public questions generally?

Mr. HEDGES. Of public questions generally. Now, here is one that comes very intimate; here is a community that builds a road—I am speaking as an amateur—the people on that road are people right from that community, some of them, the motorman, the conductor; it is a part of the life of that community. But at the same time, while it visualizes the car and the conductor and the motorman, the corporate entity is not there; they do not see it because it is an intangible thing. They know that somebody connected with it, an official or a majority-holding stockholder, has more money than somebody else has. Now it is perfectly human nature to display mental heights by criticizing somebody else or something; therefore it is vented on this, and no one to speak back. I think the roads and corporations generally have been rather cowardly about it in not going before the public; and I can understand their reasons for it. They have a local condition to meet and they may give an opponent an advantage by arguing for themselves. That would only be temporary. For instance, at the moment—if you will pardon the personal reference—I am counsel for the Association of Life Insurance Presidents of New York. The companies own volumes of railroad securities, steam, and otherwise. Those securities represent policyholders, of course. Those securities are the reserves to substantiate those policies. For, away in the background beyond this little childish petty discussion about a specific rate and a specific locality, when those people begin to know about it and the official in a petty office begins to know that his constituents in his ward know it, he will begin to do business intelligently. Now, somebody's business it is to do that.

Now, it is for the individual citizen to present the discussion. It is for the public official to tell the truth. It is the position of a commission like this, if you will pardon me, to state the facts and give their reasoning for them, with the scalpel cut right down, to make the whole thing impersonal—

Commissioner SWEET. You need not beg the pardon of the commission for offering any advice or suggestion.

Mr. HEDGES. I only say that because I am so conscious of my ignorance.

Commissioner SWEET. That is exactly what we want.

Mr. HEDGES. I am ignorant of the technique of the rate, but I have general impressions.

Commissioner SWEET. That is the idea. Now, you seem to think that by presenting the facts to the public just exactly as they are, whether it is brought to their consciousness by this commission or in other means, that the public conscience in any way will be reached and the fact that injustice is being done to the railroad corporations will be impressed upon the public mind.

Mr. HEDGES. I think it will be a very great gain for a tremendous commission like this sitting here to state to the public that there is such a thing as American justice as between an impersonal thing known as a corporation and a human vitalized thing like an individual.

Commissioner SWEET. Now, then, aside from the matter of conscience that would be involved in what you have spoken of, would there not be two other very important considerations: One the fact that you alluded to with regard to investors being composed throughout the country of people of moderate means and of the moneys invested by insurance companies, for instance, protecting life insurance throughout the country of all classes of people who insure, so that aside from the question of conscience involved, there is the matter of doing what is right for their own benefit and selfish interest, on the part of the community as a whole involved in protecting life-insurance companies and protecting themselves in their investments—widows and orphans who directly or through trustees have invested in these securities? But in addition to that, is there not a still larger question, and that is the matter of providing in some way for the necessity, not merely the convenience, but the absolute necessity of the public for these services rendered by corporations of this kind, which will be either cut off entirely or transformed into some other position with regard to the public which may not be anywhere near as convenient as at present?

Mr. HEDGES. Why, somewhere, Mr. Sweet, a high legislative authority, or whatever kind of authority it is, has got to give somebody official permission to meet the situation as it is and give a rate that will preserve property. Now, you take as illustrating what you were saying a moment ago about a political coloring: Here is the situation in New York—and I am speaking just because I am here—of a public-service commission of the same political faith as a city administration. The moment an official opinion is rendered it is attacked. The party to which I belong had a commission of five, necessarily well-ordained men mentally but without any spines; and so they rested for a year lest they be misunderstood, and they were not misunderstood. That is the reason the condition changed, by virtue of which they resumed labor. The proposition is finding a mind and a spine that will synchronize and a man who will come to his intellectual conclusions and wait for the conclusions to justify his utterance rather than a claque. The question of breathing self-manufactured incense is one of the greatest outdoor sports known to man, but, in my judgment, I think headlines have destroyed more men than obituary notices.

Commissioner SWEET. You do think, Mr. Hedges, there is a very clear, definite interest on the part of the public in the proper solution of this railway question, do you not?

Mr. HEDGES. I think, Mr. Sweet—not as even advocating anything for the roads I represent—I think the public is yearning to have this thing decided rightly. They understand it; they understand that there is trouble here. To the last minute they are going to enjoy 5-cent fares or 4-cent fares. It was suggested by an expert in New York City for the city the other day, in the hearing before Commissioner Nixon, that the New York Railways would make more money by reducing fares. The coroner was not called, because the thing was going on all the time, you know.

The fact is that there are two governments under our form: One is the man who has official office, charged with the particular responsibility under the statute. The other is the tremendous numerical majority of people who do not hold it. Neither one of them can get along without the other, and public opinion is the umbilical cord that ties them together. The conscription act could not have been put over if the public had not acquiesced in it; there were not enough soldiers here to enforce it. Now, the intelligent part of the community owes more than its numerical obligations to the rest of them; and therefore there is no way to divide individual responsibility mathematically.

Now, I think—I do not know enough about it, but it is my inference—I think that these corporations in past years have erred by not instructing the public as far as they could while they were going on. Now, I assume they attempted to; I assume that was mixed up by the diversion of local opinion for individual opinion, and everybody likes to be preferred. A man who says he does not like applause is an ordinary liar. The test is what will he do to get it. The test is whether his principle is weaker than his personality. My observation is that when a man assumes that his personality has become a proposition of conduct, his mind has begun to decay without his knowing it, because the Almighty never intended us to be personal and impersonal at the same time.

Commissioner SWEET. It seems to be admitted, Mr. Hedges, by the people who have appeared before us and those connected with the railroad business as well as others, that there was a time in the history of the country when practices that were not strictly honest or honorable were indulged in by the street-railroad companies in various communities and that these practices had something to do with the creation of the prejudice which has existed and, to some extent, still exists against the companies.

Mr. HEDGES. I have no doubt that is literally true, sir.

Commissioner SWEET. Now, then, to eradicate prejudice and to place before the people the exact facts and to secure acquiescence in measures that must be adopted in order to bring about a healthy condition with regard to these companies is certainly no boy's job, is it?

Mr. HEDGES. It is not only no boy's job, but it will take a considerable period of time, sir, and with continuous effort.

Commissioner SWEET. Now, during the period that will be required to bring that about, if it is ever brought about, if nothing is done for the relief of the companies, they are going by the board, are they not?

Mr. HEDGES. They are going by the board, and discussion of railway matters will be as to what would have happened in the past if something had been different.

Commissioner SWEET. Now, then, can you make any suggestions or offer any helpful thought on the subject as to what might be done by this commission, if it saw fit and had the real good of the public at heart as well as of the companies, as a remedial measure to keep the patient alive before the final administration of the remedial cure?

Mr. HEDGES. I can not intelligently or illuminatingly answer that question, except so far as for the moment to say officially that the keeping alive of these things requires an increased fare and giving reasons for it, and then meanwhile looking for some legislative way to do it. I have not reflected enough to answer your question.

Commissioner SWEET. Don't you think that even to get the full benefit of an increased fare a certain degree of education is necessary on the part of the public to avoid a diminution of patronage to a certain extent?

Mr. HEDGES. Yes; but I think the public as a matter of protest and principle will not physically inconvenience itself.

Commissioner SWEET. You think the public would acquiesce in the recommendation for a general increase of fares?

Mr. HEDGES. There is a difference between acquiescing in it and not physically protesting against it, Mr. Sweet.

Commissioner SWEET. Yes; in other words, they pay the fare.

Mr. HEDGES. They pay the fare; and if there is no mob violence, they have relatively acquiesced.

Commissioner SWEET. That is right.

Mr. HEDGES. In other words, the public, in my judgment, thinks anti, not pro. A small minority think pro.

Commissioner SWEET. But if there were no direct affirmative opposition, you think the wheels would keep turning.

Mr. HEDGES. I have not the slightest doubt about it, providing they had enough money to turn them, and I have not the slightest doubt about it that after the public mind had adjusted itself to that by a physical everyday habit they would curse the people that did not help bring it about.

Commissioner SWEET. And the way to keep the wheels turning, if I understand you right, is by an increase of income, especially because you think that a diminution of expenses is not to be expected in the immediate future.

Mr. HEDGES. Oh, not near enough to apply to this solution, not at all, and I think all that can be done is to substitute money for rhetoric.

Commissioner SWEET. That is all.

Mr. WARREN. Just one minute, Mr. Hedges. You could have, could you not, immediate increase of fares if the city government, which represents the other side of the contract, assented?

Mr. HEDGES. In New York the board of estimate and apportionment can give it.

Mr. WARREN. So if this commission saw fit in its wisdom to recommend as an intermediate remedy, while more permanent remedies were being considered, an increase in rate, places like New York, which are tied up with contracts, could give that relief if the public representatives chose to do so?

Mr. HEDGES. I have not any doubt that they could, and, furthermore, that they would; and then, everything having gone along rightly, they can say, "We acquiesce in a higher authority"; and that lets them out from local conversational effect; and then, later, they can say, when the embroglio is somewhat forgotten, "I shall never forget how glad I was, recommending the commission to do it."

Mr. WARREN. And as regards those States where the State commissions have authority, and cases in New York where they have authority, the commissions themselves could grant immediately on the application of the company such increases as seemed necessary to tide the companies over?

Mr. HEDGES. I have not any doubt about it, and I have but little doubt that they would.

Mr. WARREN. If this commission made the recommendation?

Mr. HEDGES. Yes; and then express regret that the commission had not done it sooner.

Mr. WARREN. Thank you very much, Mr. Hedges.

(Witness excused.)

Mr. WARREN. Mr. Chairman, I would like to ask the indulgence of the commission to postpone a little longer Mr. Nash's testimony.

The CHAIRMAN. Very well; suit yourself.

Mr. WARREN. Because we have other witnesses called for to-day.

The CHAIRMAN. All right.

Mr. WARREN. I will ask Mr. Bertron to take the stand.

STATEMENT OF MR. SAMUEL READING BERTRON.

Mr. WARREN. Your full name, Mr. Bertron?

Mr. BERTRON. Samuel Reading Bertron.

Mr. WARREN. And you are a banker, I believe.

Mr. BERTRON. Yes, sir.

Mr. WARREN. Your firm is—

Mr. BERTRON. Bertron, Griscom & Co., of New York and Philadelphia.

Mr. WARREN. And what experience have you had in street railways, Mr. Bertron?

Mr. BERTRON. Well, I regret to say, sir, that we have made a specialty of handling public-service securities for about 25 years.

Mr. WARREN. Including a great many street railways?

Mr. BERTRON. Including a great many street railways.

Mr. WARREN. And are the street-railway securities broadly distributed, in your judgment?

Mr. BERTRON. Yes; I think next to steam railways, more so than any other security that we have to offer in this country.

Mr. WARREN. Is it also true that many of the companies, in order to make necessary extensions, betterments, and improvements, need capital beyond the amount which they can obtain locally?

Mr. BERTRON. A very few communities absorb their own securities—at least on the initial issue.

Mr. WARREN. Yes.

Mr. BERTRON. Very often they gradually get back and are distributed locally.

Mr. WARREN. As a result of that, credit, general credit, is necessary in order to enable the companies to get money?

Mr. BERTRON. Absolutely.

Mr. WARREN. To get credit in the financial centers?

Mr. BERTRON. Yes.

Mr. WARREN. And now, without my questioning you right along. Mr. Bertron, will you state to the commission your view of that situation?

Mr. BERTRON. I will take pleasure in doing so, but I fear I will repeat a good deal that has been said already by others, and I will be as brief as possible.

Mr. WARREN. You may state first some of the companies with which you have had personal experience.

Mr. BERTRON. Well, we have financed the International Traction Co., of Buffalo, the New Orleans Co., Memphis, Birmingham, Wilkes-Barre, Harrisburg. Oh, we have had about, I suppose, close to 50 companies since I have been in the business.

There are, as you know, 6 billions of street-railway securities in the hands of the public, as against 19 billions of steam-railway securities. Many of us thought that well-selected securities of steam railroads and street railways offered the safest investment that could be had, because they supplied an absolute necessity; and that was demonstrated by the fact that good street-railway bonds sold on a very low interest return basis. They are very largely held by savings banks, by trust funds, by insurance companies; and there are very few investors, I think, who have not some public-service securities.

When the war came, although this particular industry was regarded as doing a war service equal to that of the steam railroads, and it was so stated by the highest officials, yet it is the only industry, I think, that received no support and was unable in any way to pass on the increased costs of labor and material to the consumer.

It was said by the officials here that it was a local problem and should be handled locally, although the causes which have brought disaster to the companies were widespread and due to the war.

Only a few local municipalities responded promptly, and hardly any sufficiently, in raising rates so as to maintain the credit of these companies and, as a result, it is practically impossible for anyone to sell any street-railway security to any investor—anything else, but not a street-railway security; an oil stock, or any old thing, but no street-railway securities; and, as a result, it is impossible to raise money, because they have no credit.

That presents, apart from the enormous losses that have been entailed to widows and orphans and to institutions and every investor—many of them have their all in these properties—apart from that phase of it, the public service is going to be seriously jeopardized and, in some cases, actually suspended.

When the problem has been put up to a local municipality as to giving a rate sufficient to offset the extraordinary costs, it has rarely been done in a comprehensive way, so that the average citizen said, "Oh, well, they have gotten along; they will go on. If these people don't run them, somebody else will run them." They have not come face to face with a suspension of the service.

Now, there is not an intelligent or semi-intelligent citizen who won't realize that without the service his municipality can not exist. They can not conduct business unless they have the transportation means, but that has not been brought home to him.

The lack of intelligent publicity is excessively great. I think, as Mr. Hedges remarked, possibly the majority of our people would act intelligently and wisely if the problem were brought home to them with sufficient clearness, and the others would act—the unintelligent and the selfish—provided they thought they would have to walk instead of ride. They do not realize that.

Then, one of the great drawbacks has been the injection of this business into politics. To use a vulgar expression which, to my mind, is effective, they have not the "guts" to stand up and do what they know to be right.

Now, these companies ought not to be in politics. It is a great economic problem. It is not a political problem. And I think that your commission, which we all hoped would have been appointed two years earlier, will be very effective in bringing that home to the people of the municipalities.

You need intelligent publicity and the realization that these companies must be taken out of politics. It is an economic problem and nothing else, and the whole life of municipalities is dependent upon the proper handling of their public utilities. How best it can be effected, of course, is a big problem, but I do not think it is beyond the possibility of your devising a formula which can be applied generally. To handle each specific case would take a very, very long time.

For instance, I know one city where a 6-cent fare has produced a 29 per cent increase instead of 20 per cent. There are other communities where a 6-cent fare does not produce over a 5 per cent increase. That is dependent upon local conditions very largely, and it would be very difficult for you to analyze each one separately.

THE CHAIRMAN. Where did the 6-cent fare produce a 29 per cent increase?

MR. BERTRON. At the moment, it is doing that in New Orleans.

MR. WARREN. A 29 per cent increase?

MR. BERTRON. Yes; from 25 to 29 per cent. One month it was 29.

MR. WARREN. Yes.

THE CHAIRMAN. Where did that 5 per cent increase come in?

MR. BERTRON. That has been pretty general. There are a number of places where they have not had even a 5 per cent increase, in some cities.

You are not going to be able to raise money to operate these properties unless, in the public estimation, their credit is substantial and is going to continue so. A temporary adjustment is not going to help, because people are not going to buy any more securities of street railways in such a temporary expedient.

MR. WARREN. A temporary expedient might save the companies while the permanent one was being adopted?

MR. BERTRON. It would be essential to increase fares generally, and that should be immediate. Otherwise, most of the remaining ones would go into the hands of a receiver.

MR. WARREN. It would be a post-mortem otherwise?

Mr. BERTRON. Indeed so. But that should be recognized as a temporary expedient pending a valuation of the properties and the granting of a fair return on that valuation by some elastic, easily adjustable, automatic system; and that is what I think should be striven for. You will save many of these companies from receiverships and enable them to pay at least their bond interest by a 6-cent fare at the moment. That is not going to be enough generally, I fear. Prices rise—

The CHAIRMAN. What fare is that?

Mr. BERTRON. Six cents.

Then the politicians have brought in this question of watered stocks, bonds, and so forth. All of that has passed. It probably was done often in the old days, but everybody should be satisfied with a fair, honest valuation of the property, and in many States rules have been established for making such a valuation. There is a field that I hope you can enlighten the people with reference to. And when you have a fair valuation, let there be definitely a fair return on that valuation; and when that is established the credit of the companies will be reestablished and the service will be able to be maintained.

Now, to my mind, there is only one alternative—two alternatives. The first, is the business going to pieces, and the people not be able to get the service? That means walking. The other is municipal ownership.

Now, personally, while I may not be in accord with many of my friends, I am not so averse to municipal ownership as some people are, of these properties.

The objection to it is that these companies would be run for political purposes. I do not think that that follows at all. A plan can be devised in each municipality, by which the merchants' associations, the banks, the chambers of commerce could cooperate, and have a business board, with labor represented, and they could handle this as a great economic problem and not as a political problem.

Many years ago water companies gradually became municipalized. A great many people looked upon that with a great deal of hesitancy and dread. It has worked well, as a rule; and I do not think, as a rule, there are any politics in it. It has one distinct advantage, and that is that a municipally guaranteed security will be placed at a lower rate than any other, and therefore the money necessary to maintain these properties can be secured on the lowest possible basis.

Mr. WARREN. Mr. Bertron, might not that result be served, to a certain extent, if privately owned securities were guaranteed, or substantially so?

Mr. BERTRON. I think if the valuation were recognized by the public service commission or the city, as the case may be, and approved as increased expenditures occurred, and a definite return on that capital were assured by the city through an automatic plan, in which the fares would increase if the earnings were not sufficient to pay that, and decrease if they were too high, and act speedily. The great trouble is that they do not act for six months or a year and then the company is busted, and to restore confidence, it has to be something that moves at once.

Mr. WARREN. When investors feel that they will get a fair return—

Mr. BERTRON. Whatever return, it is there to get it.

Mr. WARREN. As soon as expenses require it, it will go up?

Mr. BERTRON. That is it.

Mr. WARREN. What about the limitations in the franchises now? Are there pretty generally fare limitations?

Mr. BERTRON. In my experience, there are very generally. They are limitations that are bad for the municipality and bad for the finances of the company, and if you had just one kind of franchise for a whole lot of them, they would all be better off.

Mr. WARREN. And that makes an absolute obstacle to increasing the fare, without the city's authorities giving permission?

Mr. BERTRON. In some cases; not always. The Public Service Commission in New York State has increased the fares to a number of cities. In the case of Buffalo, it did not do so, by reason of an old agreement, called the Middleburn agreement, which had been in existence for some time, and in which a 5-cent fare was assured. the municipality in consideration of the abolition of transfers.

Mr. WARREN. And the opponents of the increased fares claimed that that was—

Mr. BERTRON. A fixture.

Mr. WARREN (continuing). A practical limitation?

Mr. BERTRON. And the public-service commission refused to take the case under consideration for that purpose, for the purpose of adjusting fares. The case was presented to all of the courts of the State and finally, a day or two ago, the highest court of the State unanimously determined it was a right and duty of the public-service commission to take—

Commissioner SWEET. Determined what? I did not catch that. You said the Court of Appeals of New York determined what?

Mr. BERTRON. Decided that the public-service commission should take cognizance and had a perfect right to increase fares.

Commissioner SWEET. A perfect right to raise the fares?

Mr. BERTRON. And the case is being presented to it to-day.

Mr. WARREN. Then these fare limitations in franchises would be almost the first step—

Mr. BERTRON. Where they exist.

Mr. WARREN. Where they exist, in some way must be eliminated; and your suggestion is to substitute for them this automatic scale of the rates going up and down in accordance with the expenses of the company?

Mr. BERTRON. Yes,

Mr. WARREN. And you think that that, coupled with the fair valuation, would ultimately restore the credit of the companies?

Mr. BERTRON. It is essential that you have a valuation first.

Mr. WARREN. Yes; I say based on a valuation.

Mr. BERTRON. Based on a just valuation; and that is not difficult in these times.

Mr. WARREN. How long would it take to restore the credit, in your judgment, Mr. Bertron?

Mr. BERTRON. If the municipality took over the street railway and lent it credit, its credit would be that of the municipality.

Mr. WARREN. I did not mean that.

Mr. BERTRON. If the other plan went into effect the mere public statement put in a circular offering the security of that company, with a statement of the agreement with the city, which convinced the investor that his investment was safeguarded, it would enable you to finance at once.

Mr. WARREN. So it would depend largely on how long the authorities might require to be satisfied with the utility and satisfied with the adoption of the scale?

Mr. BERTRON. Well, a temporary increase in rates could be established, pending the working out of that plan.

Mr. WARREN. Yes; I understand that that would be necessary anyway.

Mr. BERTRON. Yes.

Mr. WARREN. Without that there is no use discussing the other.

Mr. BERTRON. You would not get much credit on the temporary line of procedure.

Mr. WARREN. No; I assume not.

Mr. BERTRON. No.

Mr. WARREN. But it is necessary to take care of the company while the other matter is being considered?

Mr. BERTRON. Absolutely. You have that or wholesale bankruptcy.

Mr. WARREN. Yes.

Mr. BERTRON. And what they do not realize is that that means practically a suspension of service. It has not been brought home to them that the tracks are wearing out and the cars are going to pieces and they can not buy new stock. They take it out in damning the company, and the company can not help it.

Mr. WARREN. Don't people have the impression that a company will continue to run just as well under a receivership as otherwise?

Mr. BERTRON. Yes; that is the lack of intelligent publicity.

Mr. WARREN. Because that is not the fact?

Mr. BERTRON. It certainly is not.

Mr. WARREN. In your judgment, then, a receivership means a constantly deteriorating service and, in many cases, would mean a suspension of service?

Mr. BERTRON. In a great many cases. We have actually recommended the tearing up of tracks—the abolishing of service altogether. A temporary expedient, one that they can exist under for a time, on which the investor does not make anything on his investment, and he is eager for payments, when things are so high—

Commissioner SWEET. Will you speak a little louder?

Mr. BERTRON. That does not help the investor who bought these securities, expecting a remedy, and gets none.

Mr. WARREN. Have you given any study to the abandonments of any of the railways?

Mr. BERTRON. Well, I know of a number of cases in which it has been recommended and, I am sorry to say, one or two that I financed.

Mr. WARREN. But, speaking generally, you would say that these companies were performing an essential service?

Mr. BERTRON. I think there is no doubt on that point, sir.

Mr. WARREN. That service must be rendered in some way by somebody.

Mr. BERTRON. The highest officials of our Government have recognized that and have so stated, and I think there is satisfaction in that thought.

Mr. WARREN. That is all, Mr. Bertron, unless you think of something more that you want to say.

Mr. BERTRON. I think not. I am afraid you have heard all of this before.

The CHAIRMAN. You have been handling securities for about 25 years?

Mr. BERTRON. Or more.

The CHAIRMAN. Consisting of stocks, as well as bonds?

Mr. BERTRON. Principally bonds.

The CHAIRMAN. Principally bonds?

Mr. BERTRON. Yes.

The CHAIRMAN. What per cent of your business has been the handling of stocks, or securities, I will say?

Mr. BERTRON. Our business has been principally that of handling bonds. We have handled preferred stocks and some investment stocks.

The CHAIRMAN. Have you ever handled stocks separate from the bonds?

Mr. BERTRON. Oh, yes.

The CHAIRMAN. In a case of that kind, do you undertake to find out whether or not there is real value behind the stock issue?

Mr. BERTRON. We endeavor to find that out.

The CHAIRMAN. What investigation do you make before you sell your stocks?

Mr. BERTRON. Well, we always have engineers go over it and make a valuation, and we ascertain what the earnings have been for a number of years, and the chances of earnings being continued, showing a handsome margin over the security, etc.

The CHAIRMAN. Have you ever sold stocks at a premium?

Mr. BERTRON. Oh, yes.

The CHAIRMAN. Frequently?

Mr. BERTRON. Well, I do not know of any stocks of public-service companies that we have sold at a premium lately. I think not.

The CHAIRMAN. Have you sold many lately much below par?

Mr. BERTRON. Well, if they sold at all, they were sold below par now. The fact is that they are unsalable.

The CHAIRMAN. You stated that there is practically no market for these securities at the present time. Is that statement based upon your experience?

Mr. BERTRON. Absolutely.

The CHAIRMAN. What have you done in the last year or two to sell securities? What has been your experience?

Mr. BERTRON. You mean quite recently?

The CHAIRMAN. Yes; in the last two years, or during the war.

Mr. BERTRON. We have never offered any public-service securities in the last two years, because there were hardly any that could be sold, in our judgment.

The CHAIRMAN. You have had no actual experience in the last two years?

Mr. BERTRON. Well, naturally, there is a little going on. The bond rates are very low, and some man will say, "Well, I will take

a chance on that bond; it is very low," and he will buy it. But that is a speculative investment.

The CHAIRMAN. And have those bonds that you have sold been new bond issues or old bond issues?

Mr. BERTRON. There are very few instances where new bond issues are sold.

The CHAIRMAN. Have you sold any new bonds in the last two years?

Mr. BERTRON. No; not of street-railway companies.

The CHAIRMAN. As a matter of fact, is not the public looking with rather eager expectation to the purchase of a lot of these bonds that are now selling at a large discount?

Mr. BERTRON. I do not think you could say that the investing public does. As a rule, the investing public does not buy any until it is sure—

The CHAIRMAN. Who does it?

Mr. BERTRON. There is a class of people—usually it is the rich man who takes a flier in buying a cheap security, and he does not buy it on the advice of anybody, because we would not advise a client to buy a security that was not sure of a return.

The CHAIRMAN. You stated that these securities are held by insurance companies, trust companies, and bankers, generally speaking?

Mr. BERTRON. Very generally.

The CHAIRMAN. About what percentage of the securities of the country—the public-utilities securities—are held by investors other than the corporations that you have named?

Mr. BERTRON. Do you mean to ask what percentage of the street-railway bonds are held—

The CHAIRMAN. Other than by trust companies, insurance companies, and bankers.

Mr. BERTRON. Well, this is more or less of a guess. I have not the figures with me, but I have the figures of the holding companies and the savings banks in these securities. Probably one-fifth of the securities outstanding, or maybe more, are held by institutions, savings banks, and insurance companies.

The CHAIRMAN. Would it embarrass you to supply us with the figures showing the amount of bonds and stock held by trust companies and insurance companies?

Mr. BERTRON. Not at all. It is a public record. The Comptroller of the Currency—I made the statement, and you are familiar with it, Mr. Gadsden, last year, giving the details which we had worked up for him. Mr. Gadsden has that data.

The CHAIRMAN. Well, will you supply us with the record?

Mr. BERTRON. I will, if he has it not at hand; yes, with pleasure.

The CHAIRMAN. Do you recall just where the market center for this money is to be found?

Mr. BERTRON. Well, of course, the East is usually the market for, and has been, this class of securities. Later on the market broadened, and the West bought a lot. Farmers became prosperous, and they bought the securities of public-service corporations.

The CHAIRMAN. Do they come to New York in this particular business?

Mr. BERTRON. If it is a large issue; yes.

The CHAIRMAN. What do you regard as a large issue—one that would require them to come here?

Mr. BERTRON. Well, they could have the capital in San Francisco to finance any issue, but I do not think you would see an issue of any considerable size that was not offered in New York and locally.

The CHAIRMAN. What size would the issue have to be before it proved attractive to New York?

Mr. BERTRON. Well, there is no limit to that, sir. Large banking houses rarely bother with a very small issue, because they handle a large issue with the same facility and at the same expense of looking up as a small issue. It is just as great in the case of a small issue as in a large one.

The CHAIRMAN. Well, generally speaking, what must the size of the issue be before an eastern bank will handle it?

Mr. BERTRON. There is no limit. You see them advertise a \$200,000 issue at times, and at other times a \$20,000,000 issue.

The CHAIRMAN. Is that the practice in most of these companies going to New York for money?

Mr. BERTRON. The public offerings are usually made in New York, and then they are absorbed over the country.

The CHAIRMAN. When a western issue comes to New York, how thoroughly does the New York banker investigate that security before he handles it?

Mr. BERTRON. That depends on the banker. There was a time, I think, when those things were taken upon faith more than they are to-day. You will find that there is a most rigid investigation to-day.

The CHAIRMAN. Are there many bonds that are maturing, or about to mature, this year?

Mr. BERTRON. Oh, a great many.

The CHAIRMAN. What is to be done with those bonds?

Mr. BERTRON. In default.

The CHAIRMAN. I beg your pardon?

Mr. BERTRON. In default.

The CHAIRMAN. A great many of them?

Mr. BERTRON. A great many of them.

The CHAIRMAN. Does that usually result in the line's going into the hands of a receiver?

Mr. BERTRON. It usually does; not in all cases.

The CHAIRMAN. Have you handled any refunding bonds in the past two years?

Mr. BERTRON. No.

The CHAIRMAN. Do you know of any that have been?

Mr. BERTRON. Yes.

The CHAIRMAN. What have they been sold for?

Mr. BERTRON. There were a few cases in which street-railway bonds were sold. I only know of one or two, and that is due to special circumstances underlying the bonds. They made an excellent showing, and under all the circumstances we will say on the valuation that was made on the property, the property was well worth more than the bond issue; but you can count on one hand all the issues that have been offered.

The CHAIRMAN. What did it cost to handle those bonds?

Mr. BERTRON. That is very difficult to answer. It depends upon the investigation that is made, but it would cost anywhere, I should say, from 2 to 5 per cent, depending on the size of the issue.

Commissioner GADSDEN. What does it cost the company, Mr. Bertron?

Mr. BERTRON. Well, you mean what rate it would cost? I haven't any idea.

The CHAIRMAN. Give us some illustrations.

Mr. BERTRON. Well, there are companies I know of that money cost them up to 12 per cent.

The CHAIRMAN. What companies?

Mr. BERTRON. Well, I should not mention the names of the companies. I can get you some and give them to you, but there is hardly any company to-day that can afford to borrow money of this character and practically none that can afford to borrow it at what it costs them to-day.

The CHAIRMAN. Now, when the banker handles a bond issue at that 2 per cent, does the banker keep that bond until he can sell it in a favorable market?

Mr. BERTRON. That depends altogether on the circumstances. As a rule, in these times, a man buying a bond usually wants to get rid of it and buy something. Of course, if there are reasons why it may be worth more later on he may carry it.

The CHAIRMAN. That is purely a business proposition with a bank?

Mr. BERTRON. And the conditions surrounding the property.

The CHAIRMAN. That is all.

Commissioner SWEET. I would like to ask a question or two.

Have you given much attention to the service-at-cost plan of operating street-railway companies?

Mr. BERTRON. What do you mean, please, Mr. Commissioner, by that?

Commissioner SWEET. Are you familiar with the plan adopted in Cincinnati?

Mr. BERTRON. Fairly so.

Commissioner SWEET. That is——

Mr. BERTRON. It is a term that is used very generally.

Commissioner SWEET. Yes.

Mr. BERTRON. But I think various people have different ideas as to just what it does mean.

Commissioner SWEET. Well, in Cincinnati, you are aware of the fact that an arrangement has been made between the corporation and the city whereby fares may be increased?

Mr. BERTRON. Yes.

The CHAIRMAN. One-half a cent at a time.

Mr. BERTRON. Yes.

Commissioner SWEET. And a reserve fund is provided for operating expenses, etc. You understand the general principles?

Mr. BERTRON. Yes.

Commissioner SWEET. I think that is called a service-at-cost plan.

Mr. BERTRON. Yes. What they mean to do is to find out the cost of service, including a fair return on the capital.

Commissioner SWEET. Including a fair return on the investment.

Mr. BERTRON. That is, making a rate that has a margin over and above that, so that they have a fund to go upon.

Commissioner SWEET. Yes.

Mr. BERTRON. And when the costs rise above that there is a raise in fare to meet it, or if they go below, they use the surplus, etc.

Commissioner SWEET. And if sufficient funds are produced to meet all of these expenses and produce a fair return upon the investment, at a certain point the fares would automatically drop?

Mr. BERTRON. Quite so. I hope so, some day.

Commissioner SWEET. And the lower the fare, after it gets down to 6 cents, or below 6 cents, the holders of the common stock would come in on a better basis, or, at any rate, the company itself would receive a larger percentage than it would under any other circumstances, and if it saw fit it could make a distribution of profit, then?

Mr. BERTRON. Well, it should be able to distribute, as I understand it, whatever amount, after properly safeguarding the property—with a proper depreciation—and that, by the way, has been grossly underestimated always, in my judgment; but after providing for a proper depreciation and maintenance, and all that, and after a valuation is had, and after you have determined upon what value should be paid upon that valuation, then, whatever that amount is, the company can distribute it at will.

Commissioner SWEET. Well, without confining our consideration now to any specific form of service-at-cost plan—there might be variations in details, of course—and without particularly distinguishing between the common stock and the bonds or preferred stock, but simply going on the basis that all moneys actually invested, whether represented by one form of security or another, ought to produce a fair return?

Mr. BERTRON. Whether stock or bonds.

Commissioner SWEET. Going on that principle—

Mr. BERTRON. Yes.

Commissioner SWEET. I want to ask you what you think of the plan.

Mr. BERTRON. The principle of it is good.

Commissioner SWEET. Do you know of any other, or have you thought of any other plan that you think would be equally good?

Mr. BERTRON. Well, you know there are several of those plans. The most comprehensive one that I know of is one in Montreal. It is rather complicated—probably more complicated than we would adopt here—but most comprehensive.

Mr. WARREN. You described the general principle of that in your direct testimony, did you not?

Mr. BERTRON. Quite so; yes.

Commissioner SWEET. Yes; I understand that, but what I want to ask you now is this, without going into the details of any particular plan: Would the plan of service-at-cost, properly worked out as to detail, render a return upon capital sufficiently certain, so that you, as a banker, could recommend it to your clients, that you could recommend the bonds?

Mr. BERTRON. That would depend upon whether or not the municipality was a party to the agreement and it was legally effective.,

Commissioner SWEET. Well, the municipality would have to be a party to the agreement, would it not, in any plan of cost of service?

Mr. BERTRON. By attorneys giving the opinion that the amount agreed upon was properly safeguarded in that agreement, that it was just and legal, and the company would be put into the possession of funds, whatever they were, that that plan called for. That would restore credit very largely. But if there is a doubt about it, then it does not have the effect.

Commissioner SWEET. As I understand it, Mr. Bertron, there would be one element of doubt, but not a very large one, under the plan such as I think ordinarily would be adopted, and that is whether, having the right to increase fares, a point would be reached where the general public would not respond and where the loss of patronage would perhaps offset whatever might be gained by the increase of rates and where an amount could not be obtained that would be sufficient to pay the interest upon the securities.

Mr. BERTRON. Yes; that is quite remote, though.

Commissioner SWEET. It would seem to me that that would be remote, but what I wanted to get at was whether, assuming now that all steps were legal and a good, reasonable plan of that kind was adopted, as an investment banker, you would be willing to recommend to your clients the purchase of such securities, without attaching too great or too serious importance to the contingency that I have mentioned.

Mr. BERTRON. Well, we should like them to look at it, but generally speaking, it would go a very long way toward restoring credit. I think you might say it would restore credit entirely. As far as they did it, it was working out in a great many places.

Commissioner SWEET. You understand, I am asking this question so that the commission will have your opinion?

Mr. BERTRON. Yes.

Commissioner SWEET. As a practical man?

Mr. BERTRON. Yes.

Commissioner SWEET. Engaged in this business?

Mr. BERTRON. Yes.

Commissioner SWEET. As to the efficacy of a service-at-cost plan, if one should be recommended, in bringing about the necessary relief with regard to bringing in new capital into the business?

Mr. BERTRON. It would go a very long way toward doing it.

Commissioner SWEET. You think it would?

Mr. BERTRON. You would have to pay higher rates at first until you demonstrated that it was effective, and afterwards you would get some at a lower price.

Commissioner SWEET. Of course, an out-and-out agreement on the part of the municipality would avoid even that contingency?

Mr. BERTRON. Yes.

Commissioner SWEET. And would give greater relief?

Mr. BERTRON. And get your money at the lowest possible cost.

Commissioner SWEET. But the probability is that it would be very difficult to induce municipalities to make such a guaranty; would it not?

Mr. BERTRON. That is altogether a question how it is done and the amount of publicity.

Commissioner SWEET. You think that might be accomplished?

Mr. BERTRON. If they realize that they were not going to be political footballs and were going to have a business administra-

tion, they must then realize that the money would be acquired at a less rate of interest than in any other way, and hence that they would pay less for service.

Commissioner SWEET. You expressed a fairly favorable opinion of municipal ownership?

Mr. BERTRON. I personally think it will come to that in time.

Commissioner SWEET. You think it will come to that?

Mr. BERTRON. Yes; that is only a personal opinion.

Commissioner SWEET. Do you base that on your idea of the situation as it is, especially with regard to public sentiment, etc., or upon what you regard as really the best for the public?

Mr. BERTRON. Well, there is a general disposition on the part of any municipality to run their own property. They dislike having it owned and operated from a distance.

Commissioner SWEET. Yes.

Mr. BERTRON. They would like to have it operated at home, very naturally. Well, it is not a far step from that, if you are going to operate at home, to work out a business plan for operating it, and they will not concede that some one else, living at a distance, has any better business judgment than they have for operating the company, and they know that they will be able to get the money cheaper, and hence should get the service cheaper. Therefore, the logic of the situation is, isn't it, that it should come to that in these distinctly local affairs?

Commissioner SWEET. Do you know of any objection on the part of chambers of commerce or of the communities generally to having foreign capital come in and invest in industries of other kinds—manufacturing, for instance?

Mr. BERTRON. No, not so much that; but there is a distinct feeling in most municipalities that they would like to be their own doctors on their own municipal problems.

Commissioner SWEET. Don't you think there is, and ought to be, a distinction between water supplies and street railways in regard to ownership by the city?

Mr. BERTRON. Somewhat.

Mr. WARREN. What is your answer, Mr. Bertron?

Commissioner SWEET. Somewhat.

Mr. BERTRON. Somewhat.

Mr. WARREN. Somewhat?

Mr. BERTRON. There is not much danger of the water company being utilized politically; less than with the street railway, on account of the number of employees, and all that.

Commissioner SWEET. The water supply is somewhat of a natural monopoly; is it not?

Mr. BERTRON. Yes.

Commissioner SWEET. There is a disadvantage to the municipality in having more than one water supply, ordinarily?

Mr. BERTRON. The same is true with the street railway. It is a natural monopoly.

Commissioner SWEET. A natural monopoly?

Mr. BERTRON. Yes; and recognized as such.

Commissioner SWEET. Is not the same thing true of telephone companies?

Mr. BERTRON. Well, that is not local so much. You have telephone systems that are a part of great trunk lines running all over the country.

Commissioner SWEET. Don't you think it is a nuisance in a community to have more than one company operating there?

Mr. BERTRON. Oh, unquestionably.

Commissioner SWEET. If the street-railway company is a natural monopoly in the same sense that the water supply is a natural monopoly, why did you make a distinction between the two with regard to municipal ownership?

Mr. BERTRON. The point I made was that there would be more objection, probably, on the part of citizens to a municipally owned street railway than to a water company, fearing lest they might not have as good business management. It is a little more complicated problem. They have engineers on the outside and various other things. They have to keep in touch with operations in other cities and other developments that take place.

Commissioner SWEET. Yes.

Mr. BERTRON. And then, too, a great many people think it would be a mistake to have such a large body of men who are employed upon street railways subject to political influence of various parties.

Commissioner SWEET. Don't you think that would be a serious objection?

Mr. BERTRON. I think it can be overcome. I think the street railways can be taken out of politics, just as much as the water companies, and made an economic business proposition in the municipality. I think it quite possible to do it.

Commissioner SWEET. You are rather optimistic with regard to city government, are you not, then?

Mr. BERTRON. Well, I think we are on the upgrade. I am a great believer in the honesty of the American people when they know the facts.

Commissioner SWEET. Do you think the introduction of the commission form of city government has helped materially in the quality and character of those governments?

Mr. BERTRON. That depends upon the locality. It has in some and it has not in others.

Commissioner SWEET. Do you think at the present time there is a greater freedom from bribery and dishonesty than there was 25 years ago?

Mr. BERTRON. I do, very much; and I think that when this great body of young men that we are demobilizing from the military service are disseminated throughout the country—men who have had discipline, who have had patriotism, and who have had experience—I think they are going to be more public spirited, and I look for a distinct improvement in our whole civic morale as a result of what these young men have gone through.

Commissioner SWEET. Do you think the management under municipal ownership and operation would be as efficient as under private ownership?

Mr. BERTRON. It can be made so.

Commissioner SWEET. Would it be likely to be?

Mr. BERTRON. Well, it can be made so. Now, whether it would, would depend entirely on how it is handled. There are cities in which they could provide the arrangement that you have—say, two members of the chambers of commerce on the board, a member of the merchants' association, and two men representing labor, etc.—and take it out of politics and run it as a business enterprise. It can be done, and I think the people will welcome it.

Commissioner SWEET. Do you think they would have the feeling that it was their own business?

Mr. BERTRON. And they would take a pride in it.

Commissioner SWEET. And you think it would so develop that they would acquiesce in changes of fares with less skepticism?

Mr. BERTRON. Oh, infinitely less.

Commissioner SWEET. At the same time, Mr. Bertron, don't you know that up to date where municipal ownership has been tried it has not been as efficient as private ownership?

Mr. BERTRON. Rarely.

Commissioner SWEET. What?

Mr. BERTRON. Very rarely.

Commissioner SWEET. Well, as a rule, it has not been?

Mr. BERTRON. Yes; as a rule it has not been.

Commissioner SWEET. Don't you think your discounting the future on that line is conservative for a banker, in assuming the conditions are going to be better in the hereafter than they have been in the past—materially better in that regard?

Mr. BERTRON. I think it will come.

Commissioner SWEET. Former-President Taft, when he appeared before us, expressed the opinion that, under the present situation of the street-railway companies, they would come to municipal ownership.

Mr. BERTRON. Not necessarily.

Commissioner SWEET. If relief were not given to the companies in some way.

Mr. BERTRON. Oh, well.

Commissioner SWEET. He said he thought it would be an unfortunate thing to have to adopt municipal ownership.

Mr. BERTRON. Unless it was properly safeguarded and removed from politics; yes.

Commissioner SWEET. Well, that is the problem, but you can't remove anything that is under the control of elected officials from politics. A man who is elected to office—the mayor of a city, or an alderman, or whatever the office may be—if he wants reelection, as most officials do, is bound to consider the methods by which that may be attained, if he is an ordinary, everyday human being.

Mr. BERTRON. He thinks so, but he makes a big mistake. I think the people would much rather vote for a man who was brave enough to stand up for something—

Commissioner SWEET. That is very true.

Mr. BERTRON (continuing). Than a man who would attempt to adjust himself to what he thought were their wishes.

Commissioner SWEET. But those are his purposes and those are his morals. That is almost invariably the case. He wants at least one reelection as a sort of indorsement. Now, according to his breadth, according to his vision will be the course that he will take, and I

think you will agree with me that a very large proportion of officials are rather narrow, not altogether wise, and instead of taking a broader view and doing what is right and depending upon that for public indorsement in reelection, they indulge in what we call petty politics and seek to get votes here and there by cultivating the good will of this one or the other; is not that true?

Mr. BERTRON. Very frequently.

Commissioner SWEET. At least, it has been true in the past?

Mr. BERTRON. Very frequently.

Commissioner SWEET. And you are looking now for a broader knowledge and a bigger lot of public officials—those who will not be controlled by such narrow methods?

Mr. BERTRON. In the organizations, the removal of the stock from political atmosphere entirely. I think that can be done.

Commissioner SWEET. One question more on this point: Do you think this same man serving as an elected official or serving at the head of a street railway company as an appointee of an elected official would do as good work, would be as efficient as he would if he were employed by a private corporation?

Mr. BERTRON. He should be.

Commissioner SWEET. I am not asking what he should be, but do you think he would be?

Mr. BERTRON. Well, I think he would have as much or even more civic pride in doing well for his community than he would for a corporation. It would depend on the man, largely. Please don't misunderstand me about advocating municipal ownership of these properties. I think it is better not at this time. I think we can work out a plan, as I said—an automatic adjustment on a fair valuation—to give a fair return, and that is the way it should be handled; but I said ultimately I think it will come to the other thing, because it is the rational thing and the cheaper thing.

Commissioner SWEET. When you say "rational," you mean in theory it would be a better thing?

Mr. BERTRON. Yes.

Commissioner SWEET. But in practice I do not understand you to say that now, at the present time, you consider that it is the better thing?

Mr. BERTRON. I prefer to see the other adopted first.

Commissioner SWEET. That is all.

The CHAIRMAN. Have you had any experience in dealing with municipal officers?

Mr. BERTRON. No.

The CHAIRMAN. Then why do you say that there is not the same degree of integrity and moral strength of character and good judgment observed by officials in the conduct of public affairs as there is by bankers or others in the conduct of private affairs?

Mr. BERTRON. I did not make that statement.

The CHAIRMAN. I rather assumed that.

Mr. BERTRON. Not at all.

The CHAIRMAN. You have not got that opinion?

Mr. BERTRON. No, sir. I did not express it.

The CHAIRMAN. That is all.

Mr. WARREN. I thought Mr. Bertron was going rather far the other way.

Mr. BERTRON. What?

Mr. WARREN. I say I thought you were going rather far the other way.

Mr. BERTRON. In the other direction; yes.

The CHAIRMAN. Perhaps I got the wrong slant.

Mr. BERTRON. You certainly did.

The CHAIRMAN. And I wanted to defend the public officer, because I have been one myself pretty long.

Mr. BERTRON. I have a great respect for many of them.

Mr. WARREN. Did I ask you your opinion of the term franchise? I do not think I did.

Mr. BERTRON. No; you did not.

Mr. WARREN. In this plan which you suggest as the best plan, in your opinion, for adoption, there would be involved, would there not, the elimination of these term franchises, which come to an end and have to be reviewed periodically?

Mr. BERTRON. It is much better not.

Mr. WARREN. It should be during good behavior.?

Mr. BERTRON. The better the franchise the better the property and the better the service the public will get.

Mr. WARREN. And those things will follow if the people feel that the company is there during good behavior?

Mr. BERTRON. Quite so.

Mr. WARREN. You spoke of a straight guaranty. Of course, this plan that you are suggesting involves no real guaranty, does it, except the right to adjust fares as the exigency of the business may require?

Mr. BERTRON. Yes; or it may be that the city would guarantee a fair return.

Mr. WARREN. Yes; but that was not what you suggested.

Mr. BERTRON. No.

Mr. WARREN. If the city added to it a real guaranty, a legal guaranty, then I suppose the securities would sell just the same as municipal securities?

Mr. BERTRON. Absolutely.

Mr. WARREN. So the cost of that particular service would be no more than it would be without the public control of the service?

Mr. BERTRON. That is right.

Mr. WARREN. That is all. Thank you very much, Mr. Bertron.

STATEMENT OF MR. J. K. NEWMAN.

Mr. WARREN. You gave your full name, Mr. Newman?

Mr. NEWMAN. Yes.

Mr. WARREN. What has been your streetrailway experience?

Mr. NEWMAN. I started in in the engineering department.

Mr. WARREN. As engineer?

Mr. NEWMAN. Yes; then in the operation department.

Mr. WARREN. Of actual street-railway properties?

Mr. NEWMAN. Yes; of actual street-railway properties. Also in the accounting department; and while I am not a lawyer, I have had to get very busy with the legal department.

Mr. WARREN. Most street-railway men do.

Mr. NEWMAN. Yes.

Mr. WARREN. How long were you in the engineering department?

Mr. NEWMAN. Well, I have never been out of it.

Mr. WARREN. How long have you been in the railway business?

Mr. NEWMAN. Well, since 1895. I have had a little lapse in between, when I was out in business.

Mr. WARREN. And over how long a period has this experience extended?

Mr. NEWMAN. Twenty-four years.

Mr. WARREN. With what companies have you had this practical experience?

Mr. NEWMAN. With the Canal & Claiborne in New Orleans, the New Orleans & Carrollton at New Orleans, the Birmingham Railway Light & Power Co., the Knoxville Railway & Light Co., Little Rock Railway & Light Co., the Nashville property—I have been intimately connected with the St. Louis property, with the Dallas property, and I have been acting in an advisory way at times in the San Francisco situation.

Mr. WARREN. You have some pretty definite views on this present street-railway situation, I imagine.

Mr. NEWMAN. I have had to have.

Mr. WARREN. Would you prefer to state, without interruption by questions, and if so, will you state to the commission what you think of the present situation and how it came about?

Mr. NEWMAN. Well, if the commission will bear with me, I think I can throw some light on this situation.

The CHAIRMAN. Go ahead.

Mr. NEWMAN. Now, I am not going to take this from the street-railway point at all. I would like to talk from both sides of it, because I recognize that there are two sides to this question. The public have a very definite interest, and without understanding the public side of it it is impossible to arrive at a solution of this problem. I do not take the stand that we are altogether right.

Let us go back into the history a little bit.

I started out with 13 $\frac{1}{2}$ cents for motormen and conductors. I bought the first rail at \$20 a ton, ties at \$12 a thousand.

Now, the one thing that was uppermost in my mind always was the franchise, and I wanted to be sure that there was a 5-cent fare in the franchise and that I had a franchise for as long a term as possible. I have repeatedly refused to be interested in street-railway propositions that did not embody a 5-cent fare and a long-time franchise. This franchise gives an enormous value to the property over and above its physical worth.

The bankers were keen to see that. I want to confess to being a banker also, or I try to be a banker.

Taking advantage of the situation, we commenced to capitalize. We capitalized the earning power, because we had a monopoly. If we did not have a monopoly, we went on and bought the other road and put them together as a basis of some additional capitalization.

The CHAIRMAN. Are you speaking now about the bankers?

Mr. NEWMAN. The bankers and the street-railway men. They work together always, and the result was that it was about as lucrative a business as there was in this country. The public got the idea, and it has it to-day, that the street-railway men and the bankers associated with them made enormous profits; and that is true only

on paper. It was true in reality in the early stages of the game, and the securities became very desirable, became generally distributed and, next to steam-railroad securities, are the most popular form of investment on the part of the general public.

Now, we took these franchises with the 5-cent fare. We did not offer to divide any of that profit with anyone who was not in on the game; but if we had too much, we revised the capitalization; and we got this reputation of being big money-makers, and we got the reputation of beating the public. There is no doubt about that.

Now, the thing reverses itself completely.

Your labor has gone up three or four times, and we have not reached the end of it yet. Your rails are up three times, and all other materials are up in the same way. Within the last few years everything has practically doubled, which means that the nickel is worth 50 cents on the dollar—about 2.5 cents; and we are in absolute distress.

I do not believe the street-railway men here appreciate that as thoroughly as it is true. We are hopelessly bankrupt. Now, that may be a shock to some of them; but I want to tell you the part of the game that hurt us more seriously, or nearly as seriously as the idea which the public has that we have been enormously profitable—that we are making enormous profits and do not need this relief.

When these roads began to improve their science, bigger cars and fast schedule speed and improved service to the public, we got an ascending curve of gross earnings that was quite remarkable. As long as that ascending curve continued upward, we could capitalize and sell securities. As long as we were selling securities, we capitalized the renewal and replacement fund, which should have been in the operating expenses, but which had not been in the operating expenses to the extent that it is necessary. The only situation that I know of—I suppose there are others—where they have taken care of that renewal and replacement fund is the United Railways of St. Louis. There, for a period of 8 or 10 years, on top of their regular maintenance, they have set aside a fund called depreciation, but which should be called renewals and replacements, to take care of the thing that was going to be put out of service next year or the following year, but which did not need throwing into the junk pile at that immediate time.

That ran for a period of seven or eight years, and that road now has reduced its capitalization. It has not sold a security, to my knowledge, within the last seven or eight years. It does not sell securities. But still, what do we find? We find that that road is in the hands of a receiver, is not able to meet the natural growth of the city of St. Louis by putting in the improvements, because it can not capitalize. We find the 4 per cent bond selling for 55. They were selling a few weeks ago for 50, and behind them the junior bonds. We find the four's closed out and no more could be issued, and even though they could be issued you could not sell them.

Now, there is the one outstanding property that has taken care of this renewal and replacement fund, and yet it has not been able to navigate in a capital way and has had to go into the hands of a receiver.

We are all familiar with the fact that they had a loan from the War Finance Board during the war and have not been able to pay it

off up to this time, notwithstanding the fact that these gentlemen on that commission have crowded this road to the utmost, threatening them with the sale of the securities, which has not alarmed them very much, because what we can not do the commission can not do. The securities can not be sold.

Mr. WARREN. You are referring to the Finance Commission?

Mr. NEWMAN. Yes.

Mr. WARREN. The Federal commission.

Mr. NEWMAN. Then, we find the road breaking down under their old system of accounting. We find that they can not do any financing. We are finding this, too, that when they have to come out from under their old system of financing, there must be established a complete new financial set-up, a complete new process of financing.

Now, what is going to happen? I have had to do with putting six properties in the hands of receivers. The interest is being cut on all of the bonds.

The CHAIRMAN. During the last year or so?

Mr. NEWMAN. During the past year. And we have a serious problem, a problem which is far more serious than the public has any idea of, and I believe far more serious than the members of this commission believe.

How are we going to get around it? How are we going to solve it?

Let us talk municipal ownership for a minute. There is a constitutional prohibition in the charters of all of the cities that they can not take over the street railways by any system of guaranty, because it is not legally possible.

The next thing is that they do not want to do it. There was a cry for municipal ownership; but I do not know of a community to-day that would take over these properties. Why? Because the politician lives on public favor, and the moment the politician attempts to raise the street-car fare, the public are against him, and he will lose out at the next election. They do not want to enter into that; so, frankly, I have given up all hope of municipal ownership.

Mr. WARREN. Before you leave that, Mr. Newman, have you any views on State ownership as distinguished from municipal ownership?

Mr. NEWMAN. No; I never thought of that proposition.

Mr. WARREN. Of course, that would be a possibility with which most of the constitutions would not interfere.

Mr. NEWMAN. There you are separating the city and State, and I do not dream of that as a possibility.

I do not believe the people themselves want to put street railways in municipal ownership. They are different from any other kind of public-service corporation, for this reason. They have an enormous pay roll—40 per cent, maybe 50 per cent, of their operating expenses, and maybe a great deal more than that, the way wages are going. It means that motormen and conductors, who have not had the advantages of an education, who are not carpenters or mechanics, and who have to take this class of work—that means not the highest order of education—are prey for politicians; and that puts a lot of strength into the hands of the politicians. It puts a great big pay roll in the hands of the politicians. A water company, a gas company, and a lighting company do not have the same proportion of employees.

So I do not believe in municipal ownership.

I would be glad to get relief if we had to lose money and got rid of some of the trouble. Life is hardly worth living with the proposition as it is to-day; but I think the cities themselves do not want municipal ownership.

Now, then, what are we going to do?

The street-railway people have not presented their case. They have been assailed. When they did ask for something, they asked for a 6-cent fare. Why, that did not begin to take care of the situation, if you keep in mind this renewal and replacement fund, and especially the wage scale. They left no room for a trade. If they had asked for a 10-cent fare, they might have helped the situation some. Even at a 6-cent fare, I do not believe there is a single municipality in the United States that would vote a 6-cent fare at a referendum, and many of the cities have a referendum. The reason they won't do it is because they say, "These fellows have been getting rich, and they have made a lot of money, and we don't believe it."

THE CHAIRMAN. They did in Sioux Falls, S. Dak.

MR. NEWMAN. Well, that is an exception, as you know.

MR. WARREN. The exception that proves the rule.

MR. NEWMAN. Then, what are we going to do with the situation? We have to reach the masses.

In the city of New Orleans I knew an old conductor on a line; and when I was riding with him I said, "Why do you motormen and conductors fight this increase in fare" (they employed an attorney and they are going to the court to fight it) "when you get this enormous increase in wages?" "Because the company does not need it."

I believe the public is fair enough to give it if the facts are known; and the hope that I have in this situation is that this commission will say something to the public which they will fully believe when they won't believe the same thing said by the street-railway people.

The solution, in my judgment, is the service at cost, plus a return on the investment—an ascending fare, or a descending fare, but a fair return on the investment.

If they choke off the chance of the street-railway people and bankers from manipulating the securities again, I do not believe it matters much what the capitalization of the company is, whether it is high or low. That is not the point. If we got out to make securities, they could be cut down. It can be dealt with by the process of law, but what the people want to know is that an unfair return is not paid on the capital invested.

When the public is educated to the fact that they are paying a fair return on the investment and not a return on watered securities they are not going to object to an increase in fares, no matter what it is, even if it should be 10 cents.

Now, in this position you have to take the public's point of view, because you can not look at it fairly if you just go below the surface of the street-railway situation and do not analyze the public point of view.

Suppose we are operating a factory, and we were unwise enough to sell our product at a fixed price for a term of 20 years, what would happen when the raw material went up, so that we could not

produce that article at cost? We would go into receivership and then bankruptcy.

Now, would the purchaser of that material want to take the factory and run it, or would he say, "Here, you go on and manufacture your goods, and I want to see that you do not make an abnormal profit out of it." I think most business men would say, "You had better operate your factory; I don't want to operate it, especially when you are only getting a meager return on your investment."

And that is what the public is going to say when they are convinced that that is the situation in the street-railway business. They are fairly entitled to know that, after we have had the cream of these franchises, and that when the day of reverses passes, we are not going to continue to pay large dividends on the basis of securities. They will insist that we pay only a fair return on the capital property value and let the securities readjust themselves.

There is another feature about the financial plan—the securities plan—that I would like to see the commission adopt, if the commission should favor the plan of service at cost plus a fair return on the capital property value, and that is this, that there should be a condition attached to that sort of an arrangement by which the securities would be readjusted so that a new system, a financial set-up, will be established in order to make it possible for the street railways to go ahead and keep up with the times, to take care of this renewal and replacement fund, which has not been accumulated by a majority of the roads, but which has been an operating charge, just to the same extent as the motormen and conductors' salaries. It has been taken care of in the past through this ascending prosperity, now blocked, because we have reached the height of the industry or nearly so; and automobiles have come along and have taken the cream off the top. So we are dealing to-day with this problem of a renewal and replacement which must be inserted in the operating charge at a fixed charge. Now, when you have done that, you have broken down your whole system of finance, because there is not a banker who has played the game in New York or elsewhere who has not adopted the standard of judging a bond by the ability of the company to earn twice its interest charge. When you insert that renewal and replacement charge—notwithstanding all the properties are face to face with that, and it is a much more material thing than we have been thinking of in the past—you destroy its net earnings, and even if you had an open issue of bonds, you could not sell them unless you had two for one and, of course, I do not know of 1 road in 10 that can make that sort of a statement to-day, with a renewal and replacement fund.

Now, if you do not put it in operating expenses, you have to capitalize it, and you are not allowed to do so by the cities as an operating expense. When you put it into operating expenses, and you want a return, an interest on the fair valuation, 6 cents fades. There is nothing to it, and 7 cents, in many instances, will fade, and will go up to a very much higher standard, and there is no hope of that higher standard, unless we have taken the public into our confidence and say, "We have stopped the juggling of securities; we have stopped consolidation to get out more stock; we have gotten down to an honest system of finance, by which the public will pay a return on the investment and nothing more, and what you pay you

get. If you want a low rate of fare, take the seats out of the cars, and let everybody stand up; but if you pay enough, we will put on Pullman palace cars for you. You shall be the judge of what you want, but whatever you pay you get, and you pay it only to give us a return on our actual investment."

The CHAIRMAN. At this point, we will discontinue until 2 o'clock. (Whereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

STATEMENT OF MR. J. T. NEWMAN—Resumed.

Mr. WARREN. Will you resume, Mr. Newman?

Mr. NEWMAN. We were talking about renewals and replacements; or if we were not, I want to talk it strong.

Let us assume for a basis now that your property has a fair valuation of five to one, gross receipts. I will not say that that is the way it is going to work out, but let us take that figure arbitrarily.—

The CHAIRMAN. What do you mean by five to one, gross receipts?

Mr. NEWMAN. That the value of the property is five times the gross receipts. Now, we talk about 10 per cent of the gross receipts for renewal and replacement. That is 2 per cent of the value of the property. Just ask yourselves the question, how far will 2 per cent go toward rebuilding the property; what is the life of the car; what is the life of the rail; what is the life of the special work; what is the life of power equipment? So I am emphasizing the fact that this renewal and replacement fund has not been dealt with as an operating charge in the past; that we have capitalized the reconstruction of worn-out property because the prosperity of the company in the past permitted the capitalizing and the sale of securities, but now we can not do it any more; we can not capitalize; we can not sell the securities. The wearing out of the property is going on and we are face to face with this renewal and this replacement on top of the ordinary maintenance. You can maintain a thing up to a certain point by repairing and patching it and then it comes to where it has got to be replaced; so that becomes an operating expense from now on.

Mr. WARREN. How much do you think that should be, Mr. Newman?

Mr. NEWMAN. That varies all over the country, according to the local condition. Some roads have very heavy traffic in narrow streets; some have wide streets to permit vehicles to go on the side, and they do not interfere with your track, do not wear out your track. Paint lasts longer in some communities than others. But it is so much more substantial than street-railroad men and bankers have ever put into their statements that from now on we have got to deal with that as an operating expense.

Commissioner GADSDEN. Do you mean the current or accumulated, or both?

Mr. NEWMAN. Both. The current is repairs and maintenance. The future is going on every day, but may be only calling for a large amount of capital at some future time; reconstruction of the track or something of that kind is a replacement.

The CHAIRMAN. Who is to determine the amount of the depreciation?

Mr. NEWMAN. The management of the road. Now, I will talk about that in a minute.

The CHAIRMAN. You know that in the past railroad companies desiring to hide a large return would charge a very big depreciation account, and those who wanted to make a very favorable showing would charge practically no depreciation. Now, are you going to be able to leave this to the street-car management?

Mr. NEWMAN. You have stated two cases. One does not exist very often.

The CHAIRMAN. Well, it has in the past, and we hope it will in the future.

Mr. NEWMAN. There has been very little hiding of net earnings. To the contrary, there has been representation of net earnings that did not exist in order to justify the sale of securities for capitalization purposes. Now, that must go in the future. When that goes in the future—I want to talk banking to you a minute. You go into any banking house in the country that has a means of distributing securities and they say, "What are your net earnings? Are they two for one?" "No." "Well, we are not interested." And that standard has been adopted before you reached the renewal and replacement account. Now, if you leave it out in the future—

The CHAIRMAN. What is that two for one?

Mr. NEWMAN. Net earnings, twice the bond interest. Now, if you leave it out in the future the cities will say when giving you a return on your investment, "Oh, this does not belong in here." If you put it in as an operating expense you have destroyed this system of financing, so you have to set up an entirely new financing. That is as it should be, a new system of financing, because you will never finance on the old basis. And before the cities grant this new relief that should be one of the conditions. And I hope that this commission will point to that as one of the necessary things to be done. It will help the reorganization of the property, it will help to a better understanding in the future as to when and how we can get money for these properties. Now, those are two of the points that I want to emphasize.

Now, about the increased fare, when we get it. The mathematical percentage of a 6-cent fare is 20 per cent. It is practically impossible to say from the past experience what that is yielding, because when you get your receipts, showing, as Mr. Bertron has said, in some cases 30 per cent increase and in other cases only 5 per cent increase, that is mixed up with the prosperity or the lack of prosperity in a given community. In New Orleans, where we are getting about 30 per cent increase with a 20 per cent increase in fare, it is very largely due to an enormous prosperity brought on by war conditions, and it is very hard to say which is which. But if you can just get the public mind convinced that they are getting a square deal now, that there will be no more pyramiding of securities and no more compounding and excessive flotations and excessive profits to the bankers, and convince them that they are paying only for what they get plus return on invested capital, I think there will be no objection at all to the increased fare nor will that mean eventually a material reduction in the riding. So I do look for consider-

able relief from the increased fare and I believe it will measure up very closely as time goes on to the mathematical proportion.

Mr. WARREN. And it is the only relief that can be immediately applied; is it not, Mr. Newman?

Mr. NEWMAN. Absolutely.

Mr. WARREN. These other matters that you have discussed and that others have discussed require a good deal of time for their consideration and adoption?

Mr. NEWMAN. Yes.

Mr. WARREN. And in the meantime this increased revenue must be obtained?

Mr. NEWMAN. But if the public is convinced that the relief they are giving is for service, irrespective of capitalization but dependent upon the value of the property plus a fair return—once the public believes that, we will get our increased fares with a less effort than we are making at the present time.

Mr. WARREN. And without public hostility?

Mr. NEWMAN. Yes. Now, if we say this they do not believe us—and I say we, the street-railroad people—but if this commission would say it, I believe it would be a tremendous step forward.

Mr. WARREN. I agree with you. I think that is all I want to ask Mr. Newman, Mr. Chairman.

The CHAIRMAN. How many years have you been in the street-car business?

Mr. NEWMAN. Twenty-four.

The CHAIRMAN. During all of that time have you also been in the banking business?

Mr. NEWMAN. Yes; not all of the period in the banking business. I graduated from the street-railroad business into the banking end of it.

The CHAIRMAN. To what have you given your greatest attention, railroading or banking?

Mr. NEWMAN. First to railroading and then to the banking end of it.

The CHAIRMAN. How many years have you been giving most attention to the banking end?

Mr. NEWMAN. Since my father died, about 10 years ago.

The CHAIRMAN. Have you been giving much attention to railroading in the past 10 years?

Mr. NEWMAN. Yes.

The CHAIRMAN. At the present time you have a good many properties under your control?

Mr. NEWMAN. Yes.

The CHAIRMAN. How many?

Mr. NEWMAN. Well, I do not like that word control, but I am acting in an advisory capacity for nine.

The CHAIRMAN. You gave us some very interesting information about the early history of these companies, and particularly about the long-term franchise and the 5-cent charge. Was it your experience in the early days that the 5-cent fare was profitable to these companies?

Mr. NEWMAN. In the very early days it was profitable, but it never was as profitable as the bankers thought it was, for the reason that we were capitalizing that renewal and replacement charge.

The CHAIRMAN. How long did they operate profitably on that 5-cent fare?

Mr. NEWMAN. I should say up to the time that they began to have an increase in their platform expenses over and above 25 cents an hour, and that varied in different situations.

The CHAIRMAN. Did the practice of capitalizing the replacements and earnings begin early in the history?

Mr. NEWMAN. Yes.

The CHAIRMAN. And did you participate in that practice?

Mr. NEWMAN. Yes.

The CHAIRMAN. Did the bankers know that sooner or later that practice would lead the companies into trouble?

Mr. NEWMAN. Maybe not.

The CHAIRMAN. They were fascinated with a scheme of the 5-cent fare with a long term and thought that would carry them over all sorts of difficulties?

Mr. NEWMAN. Yes; but you must keep in mind this—that we had a new industry and it was just making leaps and bounds. Where a town or a city was at all prosperous the improved service, the improved cars, the improved speed, the moving out from the congested centers of the city into the outlying districts developed the traffic with leaps and bounds, and that was an appreciation which more than counterbalanced that renewal and replacement that was going on, sometimes called depreciation.

The CHAIRMAN. But there was a large amount of capital issued for stock which did not represent the capital put into the plant, was there?

Mr. NEWMAN. Absolutely.

The CHAIRMAN. Was not that quite a common practice in the early days?

Mr. NEWMAN. Yes.

Commissioner GADSDEN. Was it confined to public utility?

Mr. NEWMAN. No, sir.

The CHAIRMAN. I think the limit was the roof in almost everything.

Mr. NEWMAN. I think the steam railroads are in exactly the same condition to-day, and if they were to be taken from under the Government control you would see a situation similar to the street-railroad situation, and that is something this Government is facing.

Commissioner GADSDEN. Was not that the code of ethics in those days and everybody subscribed to it?

Mr. NEWMAN. Yes.

Commissioner GADSDEN. It was looked upon as proper by everybody?

Mr. NEWMAN. Absolutely. I am not meaning to reflect that I have been dishonest—I won't let you say that—and I do not believe the bankers were.

The CHAIRMAN. I am not attempting to make any reflection but am trying to develop the facts.

Mr. WARREN. It is still the practice in many industrials; is it not?

Mr. NEWMAN. It is quite the fashion to-day.

The CHAIRMAN. Suppose these properties had been operated according to modern ethics, capitalizing only the money that is invested, would they be able to operate under a 5-cent charge?

Mr. NEWMAN. Never.

The CHAIRMAN. To what extent, if any, does this excess capitalization or the practice which you refer to influence the present ability of these utilities to pay their operating costs?

Mr. NEWMAN. Well, if you mean eliminating the return on investment—

The CHAIRMAN. I spoke of operating costs.

Mr. NEWMAN. They can all earn their operating costs.

The CHAIRMAN. Under a 5-cent fare?

Mr. NEWMAN. Without interest, I think so; yes, sir.

The CHAIRMAN. Can your companies pay operating expenses on a 5-cent fare?

Mr. NEWMAN. I think they can, but no return on the investment.

The CHAIRMAN. You spoke of the service-at-cost plan. Has that question been discussed in St. Louis?

Mr. NEWMAN. Why, I should say it has been discussed by every street railroad man in the business.

The CHAIRMAN. What is the present charge in St. Louis?

Mr. NEWMAN. Six-cent fare.

The CHAIRMAN. How long has that been in effect?

Mr. NEWMAN. Something over a year.

The CHAIRMAN. Granted by the commission?

Mr. NEWMAN. Yes; as a temporary expedient.

The CHAIRMAN. Did it take you long to get the commission to make that order?

Mr. NEWMAN. Well, it came rather easily at St. Louis as compared to what has been happening in other situations.

The CHAIRMAN. The Missouri Commission has been very prompt in disposing of these war-time questions; has it not?

Mr. NEWMAN. Compared to other commissions.

The CHAIRMAN. Well, what commissions have not, in your experience?

Mr. NEWMAN. Well, take the Alabama Commission. There they have done very well—the State commission—but there has been a conflict as to whether there was not some constitutional power in the city charter which prohibited the State commission from acting, and as the result of that in Birmingham we are still operating under a 5-cent fare, but the company is under a receiver.

The CHAIRMAN. The commission showed a disposition to act if it had the power?

Mr. NEWMAN. Yes.

The CHAIRMAN. Have you not found that generally true with all commissions?

Mr. NEWMAN. Yes, if you can get a fair public-utility bill through the State and take the burden off of the local administration for giving you this increased fare—I say burden because it is so unpopular with the public—you do not have so much difficulty with the commissions where they are constituted with reasonable men on the board.

The CHAIRMAN. You have had a lot of experience in the railroad business and also in the banking business. Which, in your judgment, would be the most satisfactory solution of the street-car problem—the cost-of-service plan with municipal control and supervision, or

an indeterminate permit franchise subject to the right of the city to buy, with the rates to be fixed by the State commission?

Mr. NEWMAN. Well, I do not see a great deal of difference between the two statements; they are so closely related that they are about the same thing. I believe all service-at-cost plans are based upon an indeterminate franchise. A franchise is worthless, or a scrap of paper, from my point of view. What we want is the indeterminate franchise which regulates the rate so that here are your gross receipts and here are your operating expenses, and there are your net earnings between, and that remains constant, no matter which way the business goes. Just keep it that way. Now, that indeterminate, with the city represented on the board of the property to see that there is an honest administration, and with the city, or if they have not the power, the public-service commission of the State granting the increase and ordering the decrease in rates.

The CHAIRMAN. Then so far as you are concerned either plan would offer a satisfactory solution?

Mr. NEWMAN. Yes.

The CHAIRMAN. Have you discussed this alternative plan with many people engaged in this line of business?

Mr. NEWMAN. Yes, I have. We have had a conference of the interested parties in all of our properties together with the operators of these properties, and we have thrashed this whole question out. I am able to talk freely about it, not because of my wisdom but because I think I represent here, in what I am saying, the consensus of opinion of a great number of able men in the business.

The CHAIRMAN. This conference that you speak of is the one held by the representatives of the plants that you are interested in?

Mr. NEWMAN. Yes.

The CHAIRMAN. Have you discussed this alternative plan with those men?

Mr. NEWMAN. Well, I may be a little thick, but I can not quite catch the alternate-plan idea.

The CHAIRMAN. The cost-of-service plan is one, and the other to have the rates established by a State commission, the franchise based on an indeterminate permit subject to the right of the municipality to buy.

Mr. NEWMAN. Let me see if I can not clear that up for you. The cost-of-service plan is nothing until the rate is fixed. You find out what your gross receipts are and what your operating expenses are and that determines the fare.

The CHAIRMAN. That is true.

Mr. NEWMAN. And then the public commission fixes the fare?

The CHAIRMAN. That is true.

Mr. NEWMAN. And they go right together; you can not separate them; it is only one plan. It is not an alternative plan; one is part of the other.

The CHAIRMAN. Well, not exactly. One operates automatically after the contract has been made. In the other, you must address yourself to the judgment of a commission when you make an application for an increase or decrease, and the question then depends upon the facts presented. Now, as between those two plans your people would be satisfied with either?

Mr. NEWMAN. Yes, sir; preferably a combination of the two, if you can distinguish them as two plans.

The CHAIRMAN. Well, we may be able to develop that later on, but I have not seen the combination of the two yet; at least, it has not been presented to us.

Mr. NEWMAN. You will find this, that the city administration want to get out of this problem; they do not want to deal with it. They are going to be only too happy to leave it to the public-service commission. Now, the alternate plan you talk about is this, that the public-utility commission may order certain rates to be put in force. Now, the cities may take action to make effective the State commission's recommendations.

And while I am on that point I want to say something, too, that I hope your commission will adopt in your report; and it is this: A tentative increase in fare not based upon some definite policy by which the companies will come into vested rights is worthless for banking purposes.

The CHAIRMAN. Why?

Mr. NEWMAN. They must have vested rights; they must have the question settled for all time. We can not be going through these controversies and these discussions every two or three years.

The CHAIRMAN. How did the patrons in St. Louis regard this 6-cent fare?

Mr. NEWMAN. There was not a bit of opposition to it—well, just correct that. There was no concerted action. It was generally well received.

The CHAIRMAN. Do you think that the public looked upon that charge with favor because the rate was established by a commission that examined the facts?

Mr. NEWMAN. Yes.

The CHAIRMAN. Your home is in New Orleans?

Mr. NEWMAN. Yes.

The CHAIRMAN. There are some street-car difficulties in that community, are there not?

Mr. NEWMAN. Yes; terrific.

The CHAIRMAN. Are you interested in that plan?

Mr. NEWMAN. Well, indirectly; yes. I do not know whether I am going to be landed with it or not. I have got some senior securities.

The CHAIRMAN. What is the volume of your senior securities?

Mr. NEWMAN. All of the stocks of the New Orleans Railway & Light Co. are pledged to secure an issue of collateral trust notes which my firm floated.

The CHAIRMAN. What is represented by those notes? What is the amount?

Mr. NEWMAN. Seven and a half million outstanding now of notes, but they have all these other properties in addition to the New Orleans property.

The CHAIRMAN. Have they got a fixed franchise fare there?

Mr. NEWMAN. Yes.

The CHAIRMAN. What do they charge?

Mr. NEWMAN. Five cents. They are now giving them 6 cents.

The CHAIRMAN. Who gave them 6 cents?

Mr. NEWMAN. The city council; and there was a terrific time about it, for this reason: They did not have a State commission, and the

War Finance Board had a loan made to New Orleans, and Mr. Harding came to New Orleans and absolutely demanded that the city administration give a 6-cent fare. They gave a 6-cent fare, but there was real opposition to it; and the opposition came in this way. Remember, I take the stand that there is no opposition to an increased fare properly granted, because there is a very small per cent of the population so ignorant as not to know that they have got to pay the increased cost of these properties. But they do not want to pay it until they know that it is being paid for service and not being paid to make good some watered securities——

The CHAIRMAN. Why did the people object to the 6-cent fare in New Orleans?

Mr. NEWMAN. Because it was granted very promptly without the proper explanation as to why it was granted; and they took the stand that Mr. Harding had no right to come down there and demand that the increased charge be put on the people without the question being thoroughly discussed.

The CHAIRMAN. Was not the question discussed before the council?

Mr. NEWMAN. Yes.

The CHAIRMAN. And did not the utility present figures there to show what its operating conditions were?

Mr. NEWMAN. Yes.

The CHAIRMAN. Did not the people have the right to examine those figures?

Mr. NEWMAN. Yes.

The CHAIRMAN. And cross-examine witnesses?

Mr. NEWMAN. Yes; but they did not do it.

The CHAIRMAN. Were not the representatives of the public there?

Mr. NEWMAN. Yes; they were there and brought suit against it; the attorneys for the public were there. The street-railroad men were there themselves, and the motormen and conductors employed an attorney to represent them. And, as I stated in my testimony earlier, one of the most trusted conductors on the road told me they were opposing it because they did not believe the street-railroad company needed it. Of course, it is notorious that the New Orleans property is grossly overcapitalized.

The CHAIRMAN. How much is it overcapitalized?

Mr. NEWMAN. In the light of the present information, it is impossible to tell what the value of the property is.

The CHAIRMAN. That may be so, but what is the generally-assumed overcapitalization?

Mr. NEWMAN. Many millions of dollars.

The CHAIRMAN. And if the people there could have felt that this 6-cent fare would result in paying no more than the operating charges and a fair return on the honest value of the plant, do you suppose they would have objected?

Mr. NEWMAN. I think not; but the burden is upon the street-car people to let the public know it, and the public does not believe the street-railroad company; consequently your commission can do a wonderful service for us by telling them the facts.

The CHAIRMAN. Of course, you would not expect our commission to go into detail and develop statistical facts with reference to all these companies in the country?

Mr. NEWMAN. No; but you could state generalities.

The CHAIRMAN. If we did, I do not know when we would reach New Orleans.

Mr. NEWMAN. You certainly would.

The CHAIRMAN. Now, you spoke of renewals and replacements—and I think it was a very interesting point. Have you ever made an investigation as to the life of these bridges, rails, and culverts, and things of that kind on the roads which you operate?

Mr. NEWMAN. I never made any particular investigation. I am so thoroughly familiar with it that I carry it in my head.

The CHAIRMAN. Don't you believe since it is a very important item that it would be better for yourselves, as well as the public, having in mind this question of psychology, to have the question of depreciation determined by public authorities?

Mr. NEWMAN. Yes; it must be developed in each locality, because each one has its peculiarities and is different from the other.

The CHAIRMAN. Yes; it is always a question of study.

Mr. NEWMAN. Yes; but the principle remains the same.

The CHAIRMAN. And do you believe also that the public authorities should have control over the expenditure of the money that is set aside for that fund?

Mr. NEWMAN. Yes.

The CHAIRMAN. Giving the right of the utility to borrow from that fund if it so chooses?

Mr. NEWMAN. Yes.

The CHAIRMAN. Don't you believe that the public would have very much more respect for the utilities if it had a larger share in fixing this depreciation fund and in controlling the expenditures and especially the contracts for material and supplies?

Mr. NEWMAN. Yes. We have got to take them into our confidence and let them sit in with us. We have got to clear what is in the mind—guilt.

Commissioner SWEET. Were you here when Mr. Culkins, of Cincinnati, was on the stand?

Mr. NEWMAN. No; I only came to-day.

Commissioner SWEET. He is the director representing the city interests in dealing with the street-railroad company. Do you know what sort of settlement or arrangement was made between the city of Cincinnati and the street-railway company?

Mr. NEWMAN. Not in any of its details, only in a very general way.

Commissioner SWEET. They have adopted what they call a service-at-cost plan. But with certain details that perhaps would not be applicable in every city. I understood you to say this morning that in the city of St. Louis provision had been made right straight along, year after year, for what you call the renewal and replacement fund.

Mr. NEWMAN. Yes.

Commissioner SWEET. And yet notwithstanding that, the company got into trouble.

Mr. NEWMAN. Yes.

Commissioner SWEET. So that you would not rely upon that as doing anything except to correct what you deem to have been an

evil in the past by way of what you might call self-deception on the part of bankers and investors through the banks.

Mr. NEWMAN. That is it exactly.

Commissioner SWEET. They fooled themselves in the belief that the profits were greater than they actually were?

Mr. NEWMAN. Yes.

Commissioner SWEET. Because that very large item was omitted, and you think it should always be included.

Mr. NEWMAN. In the future there will be no other way of handling it except to take it out of operating expenses.

Commissioner SWEET. And always will be, probably. Now you admitted this morning that in the old days your chief concern was to get a long-term franchise and to have specified in that franchise a 5-cent fare.

Mr. NEWMAN. Yes.

Commissioner SWEET. And you thought if you got that you had a valuable piece of property, based of course upon the history of the industry up to that point and not based upon conditions such as exist now. At the present time you would not think of taking such a franchise?

Mr. NEWMAN. I think all of our 5-cent franchises are worthless.

Commissioner SWEET. Absolutely worthless?

Mr. NEWMAN. Yes.

Commissioner SWEET. That is, because the cost of constructing the street railroads and operating them has so tremendously increased?

Mr. NEWMAN. Yes.

Commissioner SWEET. That is the chief reason; so that the 5-cent fare is not adequate and is not in proportion now and does not afford a revenue sufficient to meet the proper operating expenses and pay a fair interest on the investment. On the same basis as you figured in the old days that a 5-cent fare was ample, what ought the fare in your judgment to be now to produce a similar result, taking into account the increased cost of material and labor?

Mr. NEWMAN. Well, I do not ever hope for a similar result such as we fancied we had at the time—

Commissioner SWEET. Well, you told us there was quite a difference between what you fancied and the real fact.

Mr. NEWMAN. Yes.

Commissioner SWEET. But could you answer my question without any regard to what you fancied and tell us what you think to be the fare now that would be equivalent under present conditions to the 5-cent fare in the old days?

Mr. NEWMAN. It is different in every locality. I would like to answer your question directly, but I do not think there are enough brains in the street-railroad business to-day to answer that question. Only time will tell when we know whether these high costs are going to continue and what the scale of wages is going to be. Only here recently in Boston they were awarded 62 cents an hour pay to the motormen and conductors. In New Orleans we are paying 42 cents. We thought that was tremendously high. The biggest item of cost of course is this wage scale, and it is fluctuating so fast now that it is impossible for anyone to say they ought to have a 6-cent fare or a 10-cent fare. But I say, let the commission say how much return you must have and let them fix the fare accordingly and change it

from year to year as we know the conditions with which we have to deal.

Mr. WARREN. That Boston rate is only an example of a great many pending requests, is it not, Mr. Newman? In Chicago, for instance, do you know what the request for wages is there?

Mr. NEWMAN. Well, I understood—

Mr. WARREN. Eighty cents, or something like that?

Mr. NEWMAN. Yes; it is away up in the eighties.

Commissioner SWEET. Have you worked out a definite plan in all its details on what we call the service-at-cost principle?

Mr. NEWMAN. Personally, I have not, but there is a Mr. Nash connected with the Stone & Webster organization, and I think he may be present here—

Mr. WARREN. He is the witness whose testimony has been interrupted.

Mr. NEWMAN. And I think he has done the most comprehensive piece of work we have had done in the street-railroad business.

Commissioner SWEET. You have not worked that out yourself?

Mr. NEWMAN. No; I have not. I have been content to take his statement of the case. I have just the one objective in mind, and all our people have it, and that is to get a fair return on the investment irrespective of what the capitalization may be on these properties.

Commissioner SWEET. The very thing that made you years ago feel that you were getting a bonanza when you got a long franchise at a 5-cent fixed rate of fare causes the public now, looking back at those days, to realize that to some extent the public was buncoed by granting those franchises; does it not?

Mr. NEWMAN. Yes.

Commissioner SWEET. And it is true, too, is it not, or some part of it?

Mr. NEWMAN. If that renewal and replacement account had been taken care of I say, No; it is not true. The money was made in handling the securities but not in operating the property.

Commissioner GADSDEN. Do you think the car rider ever paid more than he ought?

Mr. NEWMAN. No; I do not.

Commissioner GADSDEN. That is the point.

Commissioner SWEET. You do not think he ever did?

Mr. NEWMAN. No.

Commissioner SWEET. You do not think 5 cents was ever too high a fare?

Mr. NEWMAN. No. If we had had the vision to see where the science has developed as it is now—where the cream is no longer on the top but has been taken off by automobiles and other conditions—and had started to put aside then and there replacement and renewal funds to take care of the dilapidation of the property, there never was a time in the business under those conditions that 5 cents was an excessive fare.

Commissioner SWEET. Are you speaking now of the industry generally, or—

Mr. NEWMAN. Generally.

Commissioner SWEET. Will you admit that there might have been particular localities in which the 5-cent fare was too large?

Mr. NEWMAN. Well, I could not deny it.

Commissioner SWEET. You could not deny it?

Mr. NEWMAN. No.

Commissioner SWEET. So that the local conditions which you have previously mentioned as existing to-day have always existed to a certain extent; have they not?

Mr. NEWMAN. Yes, sir. I might say this to you—that I started 10 years ago to write an article on the contingency overhanging the street-railroad industry—

Commissioner SWEET. Ten years ago?

Mr. NEWMAN. Yes. I never finished, but I sold our property when I got the opportunity.

Commissioner GADSDEN. You were fortunate to find a purchaser, even 10 years ago; were you not?

Mr. NEWMAN. I thought so.

Commissioner GADSDEN. Others would have done the same thing if they had found a purchaser?

Mr. NEWMAN. No, I think not. There were others who realized that the contingencies were there but we kept thinking that this phenomenal growth which we had been enjoying due to the development of the science and service would continue.

Commissioner SWEET. Have you had any experience with what they call the safety car?

Mr. NEWMAN. The safety car?

Commissioner SWEET. Yes.

Mr. NEWMAN. I do not know it by that name.

Commissioner SWEET. The one-man car.

Mr. NEWMAN. The one-man car?

Commissioner SWEET. The one-man car.

Mr. NEWMAN. I have had one of our men investigate it. It will be a very great relief to short lines in small cities or short hauls in big cities. It will in a measure do away with the competition of the jitneys. We have several situations where we ought to use the one-man car, but we have not got any money to buy them with and can not get them.

Commissioner SWEET. Are you speaking of New Orleans now?

Mr. NEWMAN. I am speaking of all of our properties—and I think ours are in no different situation than the generality of properties.

Commissioner SWEET. So you think there is a permanent place for that kind of car?

Mr. NEWMAN. Yes; but it will give you relief of such a nature that it will be important in influencing the conclusions that I think will be brought out by this testimony here before your commission.

Commissioner SWEET. That is, you do not think that the amount of relief that it would give is sufficient to cut very much figure?

Mr. NEWMAN. No; but if I should be mistaken in that, it will be reflected in the service-at-cost-plus-interest-on-investment plan by a reduction in the fares of roads if they are put in shape to finance themselves and buy these cars; and that is one point I would like to emphasize again, that whatever is done by the cities it should be withheld from the companies until they have put themselves in financial shape to enjoy the new grant from the city to finance the requirements of the property economically instead of at 12 per cent, as Mr. Bertron testified was paid in one instance.

Commissioner SWEET. Your idea of the way this whole subject should be handled in the future, if I understand you right, is in a spirit of cooperation between the city and the company?

Mr. NEWMAN. And the public.

Commissioner SWEET. Well, when I say the city, I mean the public.

Mr. NEWMAN. Yes.

Commissioner SWEET. That would be a decided change of attitude from the past; would it not?

Mr. NEWMAN. It would not be with the administration such as we have had in our companies.

Commissioner SWEET. Has there not been an antagonism of interest to a certain extent between the public represented by the city governments and the companies?

Mr. NEWMAN. Yes, in a good many instances; but we were fortunate in never having had but one difficulty with the city government.

Commissioner SWEET. Well, whether you had actual difficulty or not, has there not been antagonism—that is, a conflict of interest in respect, we will say, to taxation and paving and various things of that kind?

Mr. NEWMAN. That is our steady diet; that is our daily work.

Commissioner SWEET. I know; but they have not pulled together in those things, have they? Has not the municipality said, "We insist now that you shall pave between the tracks and maybe for a foot or two outside," and imposed a burden upon the companies which was in one sense to the advantage of the municipality and against the interest of the company. Has not that been the case?

Mr. NEWMAN. Yes; there has been a lot of that controversy, but I should not say—

Commissioner SWEET. Well, whether they have actually quarreled over it or not, I think it has generally been accepted by the companies without any quarrel; has it not?

Mr. NEWMAN. Yes; the paving part of it was a franchise obligation in all of our properties.

Commissioner SWEET. In most cases it has been?

Mr. NEWMAN. Yes.

Commissioner SWEET. But it imposed a very heavy burden on the street railroads of the country, did it not?

Mr. NEWMAN. Tremendous.

Commissioner SWEET. And what is your view with regard to the future of those burdens? Should they be removed under the service-at-cost plan? Do you think it would be wise and the proper thing from every standpoint for the general public to relinquish voluntarily whatever advantage it might have obtained by reason of such paving and taxation?

Mr. NEWMAN. I would answer that in this way: The idea of service at cost based upon a valuation is such a tremendous question in itself that when you attempt to complicate that with these other questions you will be getting nothing accomplished. Now, I prefer not to bring up the question of taxes and of paving and to let that go along as part of the future obligations of the company, because it makes no difference whether you do the paving or the city does the paving provided you are getting a return on your investment and provided the public will pay the increased fare to justify that investment. That is almost mathematics; is it not?

Commissioner SWEET. Yes. The result, however, would be more certain, would it not, and more satisfactory to investors if the burdens that I have been speaking of were removed so that the total amount necessary to earn would be less. That would mean that the fares would be somewhat less; would it not?

Mr. NEWMAN. Yes.

Commissioner SWEET. And with a lower fare you are more certain to hold up your patronage, and the whole thing would move more smoothly; would it not?

Mr. NEWMAN. Yes; but I am afraid if we tried to be too much hog we might not get anything.

Commissioner SWEET. You do not think there would be any hog about demanding or trying to get absolute justice; do you?

Mr. NEWMAN. Not at all. But when you remove the paving and taxes you are throwing a burden back on the people that has been on the street railroads and then asking them to pay increased fares, and I think you are complicating the question so you can not present it in a concise and clear manner and can not get relief. I am afraid to tackle too many phases of this problem. It is unfair in the light of to-day's operations to pay for paving because we all know the city paves every street with rails on before any others are paved; and in New Orleans we pay more taxes than the steam railroads together, and the same is true in Birmingham. Now, if you cut off those big taxes you are transferring your troubles back to the administration. In the city of New Orleans they can not do without these street-railroad taxes. In the city of Birmingham they can not do without these street-railroad taxes. And that is where this thing is going to come back home to the city; they are going to choke these companies to the point of receivership and poor service, and then the companies are in shape to go into court and contest the taxable value and get a reduction on this franchise tax; and that is going to be a boomerang to the cities who can not afford to cut off this tax. I do not believe in complicating the question with this tax problem and the paving problem and starting more antagonism to the street railroads, because I believe we can get a fare which will return us a fair rate on our investment and at the same time take care of the paving and the taxes without having to go back to the city and complicate the problem further.

I really believe that if you could put that problem—I mean the problem of the railroads—to all of the people we could get a 10-cent fare if it was necessary, because we gave the service to justify the 10 cents. The people are not set against an increased fare; they are set against the street-railroad people who had a bonanza once, as they thought, and who now in their trouble are asking you to take up their burdens, and they want to know in the future that this pyramiding of securities will stop and that the securities will be sold on a fair interest rate. And that is why I say to you, reference should be made to the financial plan and to get a fair financial plan you must have vested right and permanent right and a process which forever chokes off all those errors in the past. Gives us only a fixed return and then let the public pay for what they want.

Commissioner SWEET. I spoke of the paving burden and taxation together but really they are on quite a different basis, are they not?

Mr. NEWMAN. Yes.

Commissioner Sweet. But if I understand your position it is that even though absolute justice might require that the paving burden should be removed from the companies, it would not be good policy for them to urge that at the present time, because it would create antagonism, and it is more for their interest and the general good that it should not be created; is that right?

Mr. NEWMAN. Yes.

Commissioner MEEKER. It is not quite clear to me just how you would obtain a reasonable return. Do you mean a reasonable return upon moneys invested or a reasonable return upon a fair valuation?

Mr. NEWMAN. I mean upon a fair replacement value of the property, including the cost of the development of that property.

Commissioner MEEKER. In the properties under your control have you followed that scheme or have you depended upon physical valuation of the properties?

Mr. NEWMAN. You can not take the naked physical value. There is lots that does not appear in that that goes to make up part of the value. It would appear in the cost to any city which would attempt to build a new street-railroad system, if it was all thrown out. You can not find certain elements of value that were there to start with and are not there to-day, but they have been part of the cost of the development of the system.

For instance, you put in a generator and that becomes obsolete. The custom was, or should have been, not to capitalize the amount of power which you threw out for the increased unit but to capitalize the increased unit. But in many cases this unit was capitalized and the old one thrown away, because its efficiency was there and the saving to the company was supposed to have wiped out the original cost. But we have kept on doing that over and over again, and those original costs never were repaid to the company.

Mr. WARREN. If I may interrupt for a moment. Had the base of any plan such as you have been suggesting and at its very foundation you would expect a proper and fair valuation of the property devoted to use, would you not?

Mr. NEWMAN. Yes, sir; certainly. The paving taken up and replaced—who knows about the old paving? You have forgotten all about it, but yet the city demanded that you do it. They had one type of paving and they changed it. You would have to go back to the old inhabitants to remember that, yet it was taken up and never paid back to you and it is part of the original capitalization.

Commissioner MEEKER. I do not wish to press that further, but it would be a sort of cumulative process then; you would necessarily have to include as a part of your investment upon which you are entitled to a reasonable return some properties that have been discarded but have not been written off the books as yet?

Mr. NEWMAN. Yes.

Commissioner MEEKER. The thing that I am really interested in is the outstanding capital, whether bonds or stock. Are you much concerned with the control of the issuance of such securities? What I mean is this: Does it make much difference whether such securities be controlled by a commission as long as you are limited to a fair return upon investment?

Mr. NEWMAN. That is correct, but you must put—let me explain this. It does not make any difference under this plan we are dis-

cussing what the securities are out against the property, whether bonds or stocks. I say ignore it absolutely and let the security holders fight that out among themselves. The authorities have nothing to do with that capitalization and ought to ignore it entirely, except for one reason. The roads must be financed in the future; and you must have a sound financial plan by which you are going to float your securities at the lowest possible rate in the future. Except for that one reason the city authorities are not concerned as to what amount of securities is outstanding, whether bonds or stocks.

Commissioner MEEKER. You think there should be some public control of the issuance of securities so as to protect the credit of the street-railway company?

Mr. NEWMAN. Absolutely.

Commissioner MEEKER. So it can get the capital it needs at the lowest rate of interest?

Mr. NEWMAN. Yes; and I go further than that. I say that before the cities make these new concessions—this new franchise arrangement with the property owners—they should demand that they fix up their capitalization in such shape that they will not only have securities that can be sold to take care of the properties in the future, but that will take care of them in a way that will do it at the lowest rate of interest. You have got to reestablish the credit for these roads and, in my judgment, you can not do it without a complete financial reconstruction; and the cities are interested that that reconstruction takes place.

The CHAIRMAN. Which would require reorganization of the company?

Mr. NEWMAN. Yes.

The CHAIRMAN. Throwing out all the old stock and reissuing new?

Mr. NEWMAN. Yes.

Commissioner MEEKER. One point I did not hear you refer to; that is, the zone system.

Mr. NEWMAN. No; I did not refer to it.

Commissioner MEEKER. Do you think that may perhaps be a means of helping to solve the difficulties of the street railways?

Mr. NEWMAN. It will be a contributing help but it will not be a substantial remedy.

Commissioner MEEKER. It is in the nature of the one-man car; it may help some, and every little helps.

Mr. NEWMAN. Yes.

Commissioner MEEKER. But the one-man car and the zone system seems to be incompatible so far as I can make out.

Mr. NEWMAN. No; they are a different proposition entirely. The one-man car has no place in street-railway operation except in short hauls.

Mr. WARREN. Where the zone system would not be operative, the haul would not be long enough to make into zones.

Mr. NEWMAN. That is correct. The zone system goes out into—

Commissioner MEEKER. The only way I can think is to think concretely. Take the city of Washington: If we establish a zone system in this city I do not see how we could use the one-man car, because as I see it, it would be very uneconomical to have these one-man cars operate only within these limited zones and then turn

back at the corner. We would have to run them through as we do now from the beginning to the end of the run, as I see it.

Mr. NEWMAN. You would have two types of car—the present car for long-distance hauls where the zone system would prevail, and on the short haul, especially in smaller cities, you would use the one-man car.

Commissioner MEEKER. And the one-man cars would operate only within a single zone?

Mr. NEWMAN. Yes.

Commissioner MEEKER. Has that been tried, do you know, in that way?

Mr. NEWMAN. I think the city of Houston has had some experience in that direction.

Mr. WARREN. We expect to introduce a witness on the safety car and its operation.

Commissioner MEEKER. Very well. That is all.

Commissioner GADSDEN. Mr. Newman, referring to what you said about the public authorities having no concern with the capitalizations of these companies, do you not think that consideration would probably have to be given by public authorities to the innocent holders of these securities that the bankers and street-railroad people to whom you referred issued some 20 years ago? What is going to become of the innocent third party, we will say, who is holding some millions of these securities now? Is the public conscience going to stand for just depriving these people of their property? They did not do any harm, did they? They bought them from bankers, we will say, in the ordinary course of business. Now, are you going to take the position before this commission that those people's property—widows, orphans, trust companies, and savings banks—that those securities are going to be sacrificed because 20 years ago a lot of bankers issued watered stock and inflated securities?

Mr. NEWMAN. Now, I am going to say yes, but with a tremendous qualification.

Commissioner GADSDEN. I want the qualification; that is what I am after.

Mr. NEWMAN. Yes; I am going to give you that.

Commissioner GADSDEN. Before you go ahead, here is the thought in my mind. I want you to get my full thought. If that confiscation were carried out, would not that of itself still further destroy credit on the part of investors in any security which the public had control of?

Mr. NEWMAN. All right. I want you to get what I am saying and get it very carefully. I have taken the position in all of our reorganizations that the bondholder who wants to exercise his full measure will have to work without me. I will fight him to a finish; that the securities in the first to the tenth position are all part of the system, and when the reorganization comes I want all of them to be dealt with fairly so that no one security holder can get advantage of this new city contract to the detriment of the other. I do not mind confessing to you that part of the scheme that I have in my mind is to withhold this franchise right from the bankers or from any class of securities and make them adopt a reorganization scheme. The basis of that is sound, because it must take care of future financing and it makes them deal with all classes of securities and agree upon

a reorganization. Now, in some instances—take the New Orleans case where the common stock of \$20,000,000 is absolutely worthless—there is no chance for that stock to have any intrinsic value whatever.

The CHAIRMAN. Is that stock all water?

Mr. NEWMAN. Yes. It is going to work a great hardship on some people, but is—

Commissioner GADSDEN. Then it is all held in New Orleans, is it not?

Mr. NEWMAN. No; there is a holding company, but there is some minority interest outstanding. I am very sorry for those people; but you can not bring that into this problem. But there is another way of throwing equity to those common-stock holders. Take the case of St. Louis, Detroit, and New Orleans: St. Louis has a 4 per cent bond which matures in 1934; New Orleans has a $4\frac{1}{2}$ per cent bond maturing in 1934, and Detroit has a $4\frac{1}{2}$ per cent bond maturing in 1934 or 1935—all about the same period. The St. Louis bond is selling at about 55, the New Orleans bond is selling at about 67, and the Detroit bond is selling at 76. Now, if you precipitate these reorganizations these fellows who hold those bonds, who have made a loan for 15 years, are going to come in and say, "Give me my money now."

A dollar at 4 per cent payable in 15 years is not worth par to-day. So, when you get this valuation of the property—take St. Louis with \$12,000,000 underlying and \$30,000,000 fours, with \$30,000,000 of bonds. That \$30,000,000 of bonds have got to be converted, say, into a 6 per cent bond which would give it ultimately $66\frac{2}{3}$ per cent value; and you cut \$10,000,000 out of that and that \$10,000,000 capitalization moves down. And the fair bankers who are in this reorganization are now going to demand their pound of flesh on these stranglehold securities at the top but are going to pass the equity all the way down, and if they attempt to do otherwise they are the ones you want to complain about; they are the ones who will be to blame. Is that clear?

Commissioner GADSDEN. I am looking at it now and the commission is going to look at it from the standpoint of the public and not from the railroad company or the holders of the first securities. I am asking you from the standpoint of the general good of this great public, have we not got to take into consideration a situation where there are millions of securities in the hands of innocent third parties? The same is true of the steam railroads, is it not?

Mr. NEWMAN. Yes.

Commissioner GADSDEN. Do you think this country can face the catastrophe of wiping that stock out altogether? Do you think your banking system would stand that?

Mr. NEWMAN. Well, you are putting a question to me that is not going to be a real one. I am quite an optimist on the street-railroad situation, because I believe in the fairness of the American public and I believe they are going to come around and straighten it up for us when the time comes that we get on a right basis.

Commissioner GADSDEN. But they have to have your help and that of others to do that.

Mr. NEWMAN. But the bonds that are in the trust companies and insurance companies, etc., will be taken care of. It is the only watered stocks in most instances that will be affected, and they will

get some by virtue of their voting power and control; and the fair banker is going to pass a little of the plum all the way down; there are going to be several bites of the plum.

Commissioner GADSDEN. That is true; but is it not true that a lot of that admittedly watered stock has gone into the hands of innocent people?

Mr. NEWMAN. Yes.

Commissioner GADSDEN. What are we going to do about it?

Mr. NEWMAN. Well, it is very unfortunate, but I think some of them will have to take their loss. I hate to say this, but it is necessarily true.

Commissioner SWEET. Did you not say that in getting the valuation of these properties you thought that the question as to what it would cost now to replace them ought to be taken into account?

Mr. NEWMAN. Yes.

Commissioner SWEET. To replace rails and cars and electrical equipment at present prices would mean a tremendous addition, would it not, or produce a tremendous excess over the original cost?

Mr. NEWMAN. Yes; but they will never stand for it; they are not willing to look at the cost when it means something for us, but they are willing to look at the cost when it means something against us. That is the attitude of the city authority.

Mr. WARREN. The valuation has to be made on the best fair basis it can, has it not, Mr. Newman, by agreement between the parties?

Mr. NEWMAN. Yes; but there are parties in line to-day who will determine that amount—there are men who are following that as a business who will do it.

Commissioner SWEET. My idea was this, that in fixing the valuation of these companies the cost of replacement at present high prices ought to be a factor; that possibly enough would be derived to more than take care of the bonds and what you might call the senior securities, and something might be left for the common stock.

Mr. NEWMAN. May I explain this to you on this problem of value? No system has been devised for getting at that value and there is never going to be any system either. There are no engineers in the country competent enough, and no group of engineers in this country competent enough, to know the absolute cost of that system or its past history, which is not available. It has to be a compromise situation, as every situation I have seen—it is just a backward and forward trade until you get a happy compromise or an unhappy compromise for the street railroads usually.

Commissioner SWEET. Well, it has to be on a satisfactory basis to the city anyway. In other words, they have to feel that it is substantially correct and fair.

Mr. NEWMAN. Yes.

Commissioner SWEET. Or else they will not agree to it.

Mr. NEWMAN. Yes.

The CHAIRMAN. Perhaps we can get your idea of the reorganization of the company and the actual effect which it will have upon the stockholders if I can present an illustration to you. I know figures are a little misleading, but I am quite sure you will grasp this.

Let us assume that you own a property which has a capitalization of \$10,000,000; \$3,000,000 is in bonds, \$4,000,000 in preferred stock,

and \$3,000,000 common stock. This common stock is water. A physical valuation is made of the property and it is determined by competent tribunals that that property is worth \$6,000,000 and that value is established by the courts. Now, your plan is to perfect a reorganization and to rewrite the securities down to the value of the property. Tell me in that scheme of reorganization how the common stockholder is going to be given any consideration.

Mr. NEWMAN. In the first place, these bonds may be 2 per cent bonds due in 50 years. Now, what is the value of a 2 per cent bond due in 50 years? Certainly not par; so those \$3,000,000 may be cut to 50 cents on the dollar. The preferred stock may have had a 5-cent franchise and be earning nothing on it, but with the new rate from the city it may be able to earn something. But the common-stock holders say, "No; we will not join in this unless you will share with us"—and they usually do share, the common-stock holders, where fair bankers have got the situation in hand. Now there is another place—

The CHAIRMAN. Well, then, the only way by which the common-stock holders can share in that reorganization is through their voting power?

Mr. NEWMAN. No; there is another way. That is one way.

The CHAIRMAN. What is it?

Mr. NEWMAN. I had hoped to avoid this discussion. The rate of return on that property—Now let us say we would get 10 per cent return on the property, which to my mind, is not excessive, knowing the business and the miseries of it as I do. I would not want to live through it another 24 years for 10 per cent. The bonds may be 5 per cent bonds, the preferred stock may be a 5 per cent preferred stock—and many of them are.

Commissioner MEEKER. This is under the reorganization?

Mr. NEWMAN. No; the old securities. Now, it only absorbs part of that 10 per cent return on your investment. You pay that 5 and 5 and you might capitalize the common stock for one dollar and issue certificates of participation in that dollar and yet have a substantial amount to divide without having the capitalization. You might have no par value a share. Do you see that?

The CHAIRMAN. I do not know what I see. I am asking you questions.

Mr. NEWMAN. Yes. Well, I have answered it, or I think I have, and I will repeat it. Take your proposition of \$3,000,000 bonds—I will make it concrete for you—and \$4,000,000 preferred and \$3,000,000 common. I will make this calculation in a hurry for you. Now, you have \$6,000,000 value, and say that ought to get 10 per cent for the risk and worry of the business. That gives us \$600,000 a year. We have to cut our capitalization to \$6,000,000. These \$3,000,000 bonds are four's and are entitled to \$2,000,000 of the new six's. The preferred stock of \$4,000,000 will be entitled to \$3,000,000 of new 7 per cent preferred stock. That is, 120,000 and 210,000 is 330,000 from 600,000 and we have an equity of 270,000 to pay the 1,000,000 common stock which I can issue within my capitalization or 27 per cent.

The CHAIRMAN. Of course that is a hopeful future. I think that is an exceedingly valuable contribution to the record. I may want to go into the public-utility business.

Mr. WARREN. You first have to catch your 10 per cent.

Mr. NEWMAN. If we get the 10 per cent you had better go into it, at the present value of the security.

Commissioner MEEKER. Is there any reason why the holders of common stock in street-railroad companies should be treated differently from the holders of common stock in any other risky enterprise?

Mr. NEWMAN. I think so; yes.

Commissioner MEEKER. Why?

Mr. NEWMAN. They rendered a public service; they took a risk that was an extremely hazardous one. They have built extensions of street-railroad tracks into territory that was vast fields, and yet these fields to-day are city lots. Now, the city has had an enormous valuation placed upon those city lots, and it has come back into the coffers of the treasury as city taxes and relieves the burden of all the people; and there are many of those street railroads to-day who have built those extensions which are not paying interest on the investment.

Commissioner MEEKER. But these widows and orphans who have been mentioned to us—these innocent investors—to what extent did they contribute to building street-railway lines into these extensions?

Mr. NEWMAN. By putting up their money to make such investments as I have mentioned possible.

Commissioner MEEKER. I do not wish to push that any further, only it seems to me that a person investing in a risky enterprise, his blood is on his own head, no matter whether that is a street-railway company or a real-estate development of a steam railroad or any other enterprise. I see no reason why we should treat the security holders in this enterprise differently from what they would be treated if they had invested it in some other risky enterprise.

Commissioner GADSDEN. Why not leave them to regulation of their rates and then you would be treating them as other people?

Commissioner MEEKER. Of course, they were well aware of the regulation of the public rates when they made the investment.

Mr. WARREN. But the regulation followed the investment in most cases. The investment was made before regulation was installed, but it seems to me if you had proper—

The CHAIRMAN. How is that so? Do you not have to get a franchise before you made the investment?

Mr. WARREN. Yes; but in many cases the rates were not fixed in the older franchises. In Massachusetts rates were almost never fixed.

Commissioner MEEKER. Do you think that any rate that the street-railway company fixed was the established rate?

Mr. WARREN. Yes. The compulsory regulation followed later. It was a development of the public-utility business from the State, the government side.

Commissioner MEEKER. I think it would be very interesting, Mr. Warren, if you could give us some documentary evidence on that point.

Mr. WARREN. I should be very glad to.

Commissioner MEEKER. This is rather a new phase to me, for I had supposed, as the chairman has indicated, that the franchises, at least for a very long period of years, had fixed the fare.

Mr. WARREN. In some States they have for a long time, but in some States they were not fixed and the regulation came with the supervisory commission.

Commissioner MEEKER. I wanted to make it clear that I regard this as a minor point. The only thing is, Mr. Gadsden has brought the matter up and it is not yet evident to me that the security holders—those who have been innocent enough—to put it that way, to invest in street-railway securities, have a right to get 100 cents on every dollar they invested in the street-railway company any more than a man who invests in a shoe factory or a real-estate development is entitled to get 100 cents return.

Mr. WARREN. Of course, if they are entitled to 100 cents on the dollar there is no reason for having any valuation, because the outstanding securities would be the measure of the amount on which the return was to be made. If the return is to be made upon the valuation, then the security holders can adjust their respective equities somewhat in the line suggested by Mr. Newman, or in various other lines which have been suggested.

Commissioner MEEKER. Yes. I think Mr. Newman has given us a very illuminating discussion of the possibilities of reorganization.

Mr. WARREN. We, probably all of us, have had more or less sad personal experiences in reorganizations and we know they can be worked out in very many ways, according to the actual or assumed equities of the various security holders in the corporation.

I have two other witnesses whom I very much want to get on before 5 o'clock, because neither of them can be here this evening. One is Mr. Ferguson, president of the chamber of commerce, and the other is Mr. Stanley, president of the Cleveland Street Railway; and Mr. Stanley has to leave at 5 o'clock and Mr. Ferguson wants to leave earlier, so I would ask the commission to have in mind that if Mr. Ferguson's examination takes too long Mr. Stanley will have to go without testifying.

Mr. NEWMAN. You do not desire anything further from me?

The CHAIRMAN. No.

(Witness excused.)

The CHAIRMAN. You may proceed, Mr. Warren.

STATEMENT OF MR. HOMER L. FERGUSON.

Mr. WARREN. Your full name, Mr. Ferguson.

Mr. FERGUSON. Homer L. Ferguson.

Mr. WARREN. And you are the president of the United States Chamber of Commerce, I believe?

Mr. FERGUSON. Yes, sir.

Mr. WARREN. And also of the Newport News—

Mr. FERGUSON. Shipbuilding & Dry Dock Co.

Mr. WARREN. Yes, sir.

The CHAIRMAN. What was that last statement?

Mr. FERGUSON. The Newport News Shipbuilding & Dry Dock Co.

Mr. WARREN. As President of the United States Chamber of Commerce, have you had occasion to hold hearings or conduct an investigation on this same subject, by the chamber?

Mr. FERGUSON. Yes, sir. The committee was appointed before I was elected president, by Mr. Harry Wheeler, of Chicago. At the

St. Louis convention, it was decided that the conditions of the street railways had become so critical that the chamber of commerce should appoint a special committee to investigate the subject as completely as possible, with a view of submitting to a referendum their decisions, with the arguments pro and con, so as to get an expression of the business organizations of the country, which constitute the chamber.

MR. WARREN. And this convention was what—the convention of what?

MR. FERGUSON. It was a convention of the Chamber of Commerce of the United States, attended, I should say, by about 3,000 delegates from all over the country, and it was decided there that this committee should be appointed. The committee was appointed by Mr. Wheeler, and has been in session here in Washington on a number of occasions. I have attended one or two of the meetings of the committee, but not as a member.

MR. WARREN. You have said that the feeling of that convention was that the situation was a very serious one and demanded some certain action?

MR. FERGUSON. Yes, sir.

MR. WARREN. And has that impression been increased or lessened by what you have heard in the hearings?

MR. FERGUSON. It has been increased—that and discussion with a great many men who are operating street railways and who are concerned with them. I think the business judgment of the country, so far as it can be gauged, is that the situation is right critical and should receive attention just as soon as possible, on account of the enormous amount of values involved and the fact that the companies, a great many of them, are in a bad way.

MR. WARREN. You yourself have had some street-railway experience, I believe?

MR. FERGUSON. Not as a manager, Mr. Warren. I am a director in a local street railway at Hampton Roads, between Old Point and Newport News; and I believe we have one of the few street-railway properties in the United States that is doing very well at the present time.

MR. WARREN. That is, thanks to your activities at present with the shipbuilding company, I assume.

MR. FERGUSON. Well, it has been due to the shipyard to an enormous extent. It has been due to the fact that the population feeding this railway probably more than doubled. We have from fifteen to forty thousand soldiers there all the time, and they ride on the cars a great deal, and it has also been due to the fact that the street railway there not only sells transportation but also power, ice, gas, and—

MR. WARREN. So the returns are not confined to the transportation features?

MR. FERGUSON. No. Another point is that in the early days we had a 12-mile trip when we had a competing company. Both companies practically went broke carrying people these 12 miles for a nickel; and then, when one company went under and the property was absorbed by the other in a reorganization, the district was split into three zones, and a 5 cents fare in each zone, for the primary reason, as I understand—I was not associated with the company at all then—

Mr. WARREN. Yes.

Mr. FERGUSON. For the primary reason that the country was so sparsely populated that we could not afford to carry them for a nickel. Now, when the traffic has increased enormously, this weakness of the original system has been the strength of the present system.

Mr. WARREN. You practically increased your fares ahead of time because of the sparsely settled territory?

Mr. FERGUSON. Yes; and now when the cars are running full, of course that has given the benefit to us. At the same time, at the works, our men are carried over the old lines as much as 3.5 miles for 2.5 cents.

Mr. WARREN. That is a special morning and evening rate?

Mr. FERGUSON. That is between 6 and 7 in the morning and 4 and 5 in the afternoon. They are carried very thick. About 2,500 men, or 20 per cent of our force, ride in the cars. The others walk.

On the new line, which was built with money loaned by the United States Shipping Board Emergency Fleet Corporation, the fares were fixed by that corporation at 5 cents for workmen—or twice the fare over the old line—on account of the excessive cost of the new equipment of the new line.

Mr. WARREN. Which was built during the war?

Mr. FERGUSON. It was built during the war under an agreement that the money loaned on the actual railroad, as I understand it, was to be repaid in full, but the equipment was to be purchased at a fair valuation under a board of neutral appraisers.

Mr. WARREN. Yes?

Mr. FERGUSON. In other words, the excess cost during the war was taken care of by the war.

Mr. WARREN. Yes.

Mr. FERGUSON. In that, as in several other things in our vicinity, it was recognized that this was a war cost.

Mr. WARREN. And where was this 5-cent fare, as compared with the 2.5-cent fare—in the same direction?

Mr. FERGUSON. No; in another direction.

Mr. WARREN. But about the same distance?

Mr. FERGUSON. Not quite so far.

Mr. WARREN. So that the Government recognized thus the increased cost of construction by fixing a higher fare on the new line for the men than on the old line?

Mr. FERGUSON. Oh, yes; not only for the men, but the ordinary fare was made 15 cents a round trip over the new line for the soldiers. Then the citizens living along this line all kicked, and so they were given 15 cents a round trip, although the ordinary fare was 10 cents, and for workmen 5 cents.

Mr. WARREN. And on the old line it was still 10 cents?

Mr. FERGUSON. Yes.

Mr. WARREN. For that distance?

Mr. FERGUSON. Yes.

Mr. WARREN. For the public?

Mr. FERGUSON. Yes.

Mr. WARREN. How did you happen to become connected with the road, Mr. Ferguson?

Mr. FERGUSON. It was largely accidental. We were very much interested in the street railway, because decent transportation was necessary to the operation of our business; and after one of the old roads had gone into bankruptcy and had been bought up by the other, and the other was in pretty nearly as bad shape, the whole thing being run down, and they did not have any money, and the men would come into the works in the morning a half hour late or an hour late, and we used to have to argue with them more or less not to wreck the system. This had happened time and time again. The lights would go out and would come on again the next night, perhaps. So that when the bondholders took over the property and reorganized it by sending some railway people there who, in my judgment, knew the business, the local people were very much interested; and in order to rehabilitate themselves in local favor, they had a number of local men, or asked them to acquire enough shares in the company to be elected directors. A majority of the directors are local men, who, by no means control the stock; and it was an evidence of good faith on the part of the people who came there to rehabilitate this railroad. The question we asked them was whether they are going to run a real railroad or the kind of thing that we had had, and they showed every evidence of operating the street railway not only for the benefit of the stockholders, but for the benefit of the public; and I think they have done it; and the local directors have been very active in assisting them to do it, and in seeing that they did do it.

Mr. WARREN. Yes?

Mr. FERGUSON. Which they wanted to do. So, instead of having a company which could furnish no service, we have a company which does furnish a real service that did not break down during the war, notwithstanding the fact that their traffic more than doubled, and which has been a real asset to the community. The war-working community could not have been carried on at all without the street-railway transportation, the power and electric lights, and so forth.

Mr. WARREN. So that you had an experience with a broken-down road rendering poor service, because it was not earning enough to do anything else?

Mr. FERGUSON. Yes.

Mr. WARREN. And with an up-to-date road there, charging a high rate of fare, you have maintained good service?

Mr. FERGUSON. No; they did not charge a high rate of fare. The old road had charged the higher rate before they went into the hands of a receiver.

Mr. WARREN. They had raised it to the three fares?

Mr. FERGUSON. They had raised it, but they had no money. They had no credit. So a local syndicate was formed which raised approximately \$1,000,000, about. Of this \$1,000,000, \$750,000 was put in a power house and the rest was put in the property. In other words, they put the property on its feet.

Mr. WARREN. Yes.

Mr. FERGUSON. By creating a credit for it. Then, with the increased business the earnings picked up at once, and they have been going very well ever since.

Mr. WARREN. So that that is a question of a company without credit as compared with one with credit?

Mr. FERGUSON. The company had no credit under the old arrangement. As soon as it could borrow money they put the property in good condition and built it up, and that, with the increased business, paid them very fair earnings.

Mr. WARREN. One of the reasons, I suppose, that you were on the board was to get reliable service?

Mr. FERGUSON. Absolutely.

Mr. WARREN. For your employees?

Mr. FERGUSON. Yes; that is very important in a small place like ours—of about 30,000 or 40,000 people—because we have a great many men who live a good distance away from their work. I think the most vital feature in a place like ours, of street-car transportation—reliable transportation—is that it enables the workmen to live where land is cheap, where he can eke out his wage by being fairly independent in the matter of his own garden, his chickens and cow and pigs, and all that sort of thing. Incidentally, I believe that the one real sure cure for all of what we are pleased to call our modern ills and bolshevism is to have every man own his own home; and if his home is out in the country, where land is cheap, and where living is cheaper, I think that is of great benefit. We have built, for instance, a town of 500 houses, where this new transportation was provided, for the express purpose of giving the men a place to live other than a tenement or a mud row, or something like that.

Mr. WARREN. You provide some land for each owner?

Mr. FERGUSON. Oh, yes.

Mr. WARREN. A house and lot?

Mr. FERGUSON. Well, they have a garden. The street-railway company has made access to cheap land for industrial workers, and I think that is most important.

Mr. WARREN. Yes; and as president of the chamber, you would say that this matter is one of the very greatest importance at this time, would you not?

Mr. FERGUSON. Yes.

Mr. WARREN. This street-railway problem?

Mr. FERGUSON. I think it is one of the most important matters in the country at the present time. Financially, it would seem to me to be the most acute problem that we have internally at this time.

Mr. WARREN. And unless settled it might involve great and serious financial dangers, I suppose?

Mr. FERGUSON. I should say so.

Mr. WARREN. That is all.

The CHAIRMAN. Has the committee of the chamber of commerce which has been making a study of this question made any report?

Mr. FERGUSON. I do not know that they have as yet, sir; but they are formulating a report. I understand the matter has progressed favorably. They had a hearing in Washington.

The CHAIRMAN. Have you an idea how soon they will have such a report presented?

Mr. FERGUSON. I don't know. I believe, though, within a comparatively short time.

The CHAIRMAN. Before this commission gets through with this investigation?

Mr. FERGUSON. I hope so, and if the commission would like the data that they have accumulated from a variety of sources it can be put at the service of the commission, if the commission sees fit to use it.

The CHAIRMAN. That is very kind indeed. We will take that into consideration.

Mr. FERGUSON. Yes, sir.

The CHAIRMAN. In your Newport News plant you have gas, light, and railway combined?

Mr. FERGUSON. Yes, sir.

The CHAIRMAN. Have you ever made a separation of the cost of performing each branch of the company's service?

Mr. FERGUSON. Yes.

The CHAIRMAN. Do you know whether the railway service, in and of itself, is paying its own way?

Mr. FERGUSON. Yes; it is paying its own way, but not much more, at the present time.

The CHAIRMAN. Although you have greatly increased the volume of your business?

Mr. FERGUSON. Yes.

The CHAIRMAN. And the number of passengers that you serve?

Mr. FERGUSON. Yes.

The CHAIRMAN. You mentioned a village of 500 houses which was built for the use of industrial workers. How far is that from the plant?

Mr. FERGUSON. About $2\frac{1}{2}$ miles.

The CHAIRMAN. What is that fare?

Mr. FERGUSON. 5 cents. The Government fixed that rate of fare for this village. They loaned the money to build the village with.

The CHAIRMAN. Do you feel that the street-car industry is a permanent institution?

Mr. FERGUSON. Permanent?

The CHAIRMAN. Yes.

Mr. FERGUSON. Yes, sir.

The CHAIRMAN. Do you think it is just as vital to the commercial development and welfare—the communal development and welfare of the city as the light, gas, and water?

Mr. FERGUSON. I do not think it is as important as water, but I think it is as important as the light or gas or anything else we use, except water and air.

The CHAIRMAN. But if the street-car companies should become a decadent institution and there was nothing better put in its place, would we not have to completely revolutionize our whole economic and social system?

Mr. FERGUSON. I think so. Of course, automobiles can be operated, but I do not believe we will ever see the time, unless some new power method of transportation is devised, when we will operate over roads as economically as we will on steel rails.

The CHAIRMAN. But the country must have some institution that can travel 365 days on steel?

Mr. FERGUSON. Yes, sir.

The CHAIRMAN. Regardless of weather conditions?

Mr. FERGUSON. I think so.

The CHAIRMAN. And, of course, the automobile will not supplant that?

Mr. FERGUSON. Yes, sir.

The CHAIRMAN. In Minnesota oftentimes we have 5 feet of snow on the level.

Mr. FERGUSON. Yes, sir.

The CHAIRMAN. And the automobiles are stored up during that period.

Mr. FERGUSON. I would say that they are an absolute necessity in any modern city. For industrial workers, for whom I speak particularly, I think it is vital that you have street-car transportation.

The CHAIRMAN. Then we should proceed upon the theory that this distribution must be preserved?

Mr. FERGUSON. Yes, sir.

Commissioner SWEET. What wages are you paying, Mr. Ferguson, on your street railway?

Mr. FERGUSON. 45 cents, I believe, at the present time.

Commissioner SWEET. Was that adjusted by the War Labor Board?

Mr. FERGUSON. No, sir; it has been adjusted by the company voluntarily. I think we had seven raises in three years.

Commissioner SWEET. Are your conductors and motormen white men?

Mr. FERGUSON. Yes, sir.

Commissioner SWEET. Is that wage satisfactory to them?

Mr. FERGUSON. As far as I know.

Mr. WARREN. I do not suppose it is fair to ask you whether you think they will go up further?

Mr. FERGUSON. I do not think it is likely to come down soon.

Commissioner SWEET. The general raise of wages and materials that go into street railways, and everything else now, has been mentioned by former-President Taft as an evidence in his mind that the purchasing power of money had been reduced. Is that your view of it?

Mr. FERGUSON. Yes, sir; it results in that. Wages and materials, generally speaking, I think, have doubled and more than doubled in the last four years. They have considerably more than doubled in our business. In the street-railway business, I understand, they are about doubled.

Commissioner SWEET. Taking an ordinary street railway that was doing fairly well before prices advanced, with the nickel fare, having no control over the increase of costs and no ability to increase its income by raising fares; when you take that into account, are you at all surprised at the critical condition that you say you think the companies are now in with regard to street railways?

Mr. FERGUSON. I think it would be very surprising, Mr. Sweet, if what has happened had not happened.

Commissioner SWEET. Practically, to a man of any business ability whatever, or intelligence, it is the very thing that had to happen; is it not?

Mr. FERGUSON. I think it is; and it is a demonstrated proposition that if everything else goes up except street-car fares, and they are left in the lurch, and no miracle is going to take place with reference to them any more than with anything else. Everything else

seems to have gone up that I know of. It seems to me—I won't say absurd, but it seems very strange that the question would have to be discussed at such length, Mr. Sweet.

The CHAIRMAN. Yes.

Mr. FERGUSON. Now, for instance, when men have to be charged to-day a greater fare because property costs more money, we have found that by explaining it to the men, all of whom may be getting more money, because it costs them more to live, that this is a necessary thing on account of its having been done during the war; and although they do not like it, they put up with it as the rest of us do when it is explained to them and when it is explained that the Government has allowed this. As a matter of right, they do not object particularly, and we have found that they want to do what is fair and right. I am speaking of the workmen who pays his nickel.

Mr. WARREN. On your line?

Mr. FERGUSON. Yes.

Commissioner SWEET. Do you think that is typical in all communities throughout the country?

Mr. FERGUSON. I do not know that it is, sir. There seems to be a good deal of opposition to it, but it does seem to me if the facts—and particularly the facts as developed in an authoritative way—could be properly placed before the people who are concerned, you will find, in general, that most people, the big majority of people, would be willing to do what is fair and right.

Commissioner SWEET. Yes.

Mr. FERGUSON. If they were convinced that it was the right thing to do. Of course, I have no scheme of financing a reorganization. The one thing that is patent to me is that they must get more fares or go broke, but as to how it will be done and how the final reorganization will take place or just what method will be used, I do not know; but it seems perfectly patent that no one should expect to ride now for 5 cents as he rode for 5 cents six years ago.

Commissioner SWEET. When he knows that he can not buy potatoes or anything else at the same price.

Mr. FERGUSON. He knows he can buy absolutely nothing except at greatly increased prices.

Commissioner SWEET. In view of the fact that the Chamber of Commerce of the United States has a committee investigating this subject which will soon make a report, I presume you would prefer not to express any personal opinion?

Mr. FERGUSON. Not at all; because it would be my job to try to assist in putting through the recommendations of that committee.

Commissioner SWEET. And you would prefer, naturally, to await that report?

Mr. FERGUSON. Not only that, sir, but I do not feel competent to express a judgment as to the final solution of it at all, and I would not do so, awaiting the report of our committee.

Commissioner SWEET. That is what I would imagine.

Mr. FERGUSON. Yes, sir.

Commissioner SWEET. And, for that reason, I will not ask you any question on that point; but a matter that I think is patent to everybody, or ought to be, at least, as you have said, is that with costs increasing for everything that the company has to buy that its in-

come must be increased by higher fares in order to meet its obligation?

Mr. FERGUSON. Yes, sir.

Commissioner SWEET. Otherwise, it would have to go out of business?

Mr. FERGUSON. Yes, sir.

Commissioner SWEET. There is no question about that, is there?

Mr. FERGUSON. I do not think there is.

Commissioner SWEET. That is all.

Commissioner GADSDEN. Mr. Ferguson, pending a working out of a permanent solution either on the lines recommended by the committee of the chamber of commerce, or, we will say, by this commission, what would you say as to the immediate necessity of the situation?

Mr. FERGUSON. Well, I should say the first aid to the wounded would consist in giving an increase in fare to suit the actual positive present necessities of any particular situation. I do not see that that can be escaped, if the companies are to be saved.

Commissioner GADSDEN. That is all I have to ask.

Mr. WARREN. Your men, I suppose, are receiving a great deal higher wages in your work than they received formerly?

Mr. FERGUSON. When the 2.5-cent workmen's fare—which also applied to school children, by the way—was adopted, the first-class pay of the mechanic we had was two and a half a day. At the present time the pay of a first-class mechanic is \$6.40 a day. He worked 10 hours then, and he works 8 hours now.

The CHAIRMAN. Go down the line and give us a few more figures of the same kind, Mr. Ferguson.

Mr. FERGUSON. The common laborer got \$1 a day. At the present time he gets \$3.68 a day for the commonest of the common labor, and \$4 a day for what you would call a helper or the higher grade of laborer. When the fare was established he was getting 90 cents a day. That is black labor.

The CHAIRMAN. Are you paying black labor \$3.68?

Mr. FERGUSON. The minimum is \$3.68 now.

Mr. WARREN. For black labor?

Mr. FERGUSON. Yes, sir. It runs from that with pieceworkers up as high as \$150 a week.

Commissioner MEEKER. Have they been working 8 hours, too?

Mr. FERGUSON. Working 8 hours; yes, sir.

Commissioner SWEET. And formerly 10 hours?

Mr. FERGUSON. No one is working 10 hours.

Commissioner MEEKER. I say, formerly 10 hours.

Mr. FERGUSON. Formerly 10 hours; yes, sir.

The CHAIRMAN. These men are in your street-car service?

Mr. FERGUSON. No; the shipbuilding service. In the street-car service the wages are different. They pay the same wages in the shops as we do, but the motormen and conductors, as I understand it, run about 12 hours. I am not sure, but they run longer hours than we do.

Commissioner SWEET. At 45 cents an hour?

Mr. FERGUSON. Yes, sir.

There was one thing that was done locally that may interest you gentlemen, in regard to the street-car service, and that is in the

morning and afternoon when the cars are crowded we have a great many men who are not motormen, and these men will take the place of the regular motormen on the morning and afternoon runs and get a quarter or 50 cents a day extra for the running of the car in and out when it is loaded. They come into the shipyard and work all day and run that car back at night. That is very satisfactory to the men and very satisfactory to the company, because it saves them the service of these extra men. That is done in the case of a good many men.

Mr. WARREN. How has this wage of the men on the work that you have mentioned been fixed?

Mr. FERGUSON. They were fixed by the Shipbuilding Labor Adjustment Board here in Washington. At the shipyard they were increased about 150 per cent. In the case of some trades, in pieceworkers, it was much more than that; so that I feel that, as a local situation, the men who were employed industrially can very well afford to pay the higher street-car fare.

Mr. WARREN. And it does not make the street-railway wage look as high, by comparison, as it seems to the street-railway men, measured only by what it used to be?

Mr. FERGUSON. No; and it has made it very difficult for the street railway, locally, to keep their men, because they could come into the shipyard and get so much better wages, so that their wages have gradually been increasing with ours.

Mr. WARREN. Do you expect, Mr. Ferguson, that this level of wages is going to continue for some time or is it going to drop again soon?

Mr. FERGUSON. I think it will continue for some time.

Mr. WARREN. A matter of months or years?

Mr. FERGUSON. Years. I do not see any signs of decreases in wages. It seems to me that commodities are bound to remain high, on account of the tremendous foreign demand, and that wages with us are bound to remain high, on account of the cost of living, and also on account of the tide of immigration actually setting the other way, instead of to this country; so that I think, although a great many people predicted lower wages with the end of the war and the signing of the armistice, there has been no sign of it, and if any tendency has been exhibited, it has been, I think, a tendency upward instead of downward, as illustrated by the various strikes going on.

Mr. WARREN. That is in the street-railway industry, certainly, is it not?

Mr. FERGUSON. Oh, yes.

Mr. WARREN. I am very much obliged to you, Mr. Ferguson. That is all I have.

Mr. FERGUSON. I am much obliged to you, gentlemen.

The CHAIRMAN. Mr. Ferguson, you have a very illustrious man to follow in the chamber.

Mr. FERGUSON. Yes, sir; he is a very fine man.

Mr. WARREN. Mr. Commissioner, I will ask Mr. Stanley to take the stand.

STATEMENT OF MR. JOHN J. STANLEY.

Mr. WARREN. Mr. Stanley, your full name?

Mr. STANLEY. John J. Stanley.

Mr. WARREN. You are the president of the Cleveland Street Railway Co.?

Mr. STANLEY. The Cleveland Street Railway Co.

Mr. WARREN. And have been for how long?

Mr. STANLEY. Ten years.

Mr. WARREN. Were you the president before the service-at-cost plan was introduced there?

Mr. STANLEY. I was vice president and general manager.

Mr. WARREN. How long were you connected with the road before you became president?

Mr. STANLEY. I had been with the road about 36 years.

Mr. WARREN. What did you start as?

Mr. STANLEY. Hill boy.

Mr. WARREN. Sanding the rail?

Mr. STANLEY. No; pulling the cars up the hill with a horse.

Mr. WARREN. Tow horse?

Mr. STANLEY. A tow horse; yes.

Mr. WARREN. So you have been with the road from the time it was a horse railway down to the time that it became a service-at-cost road?

Mr. STANLEY. Yes.

Mr. WARREN. And that marked some change, I presume?

Mr. STANLEY. Yes; I have seen some change.

Mr. WARREN. Now, Mr. Stanley, you have to go at 5 o'clock, do you not?

Mr. STANLEY. Or very soon thereafter.

Mr. WARREN. I want to leave some time for the commissioners to ask some questions, so I do not want to take up too much time asking questions myself; but I should like to have you give the commission a sketch of this service-at-cost situation—how it came about, and how it is working.

Mr. STANLEY. After 10 years of fighting in Cleveland with Tom Johnson and the city officials, Judge Tayler devised a scheme of service at cost. The scheme was to deduct from the receipts the operating costs, the maintenance costs, taxes, and interest. The interest cost was, of course, the 6 per cent on our stock. The balance would go into the interest fund. When that interest fund became \$700,000 or more, the fare was reduced. When it came down to \$300,000 the fare was increased. So the interest fund is the barometer. As the interest fund reaches \$700,000, there is nothing else to do but to lower. When it reaches \$300,000, it has to raise it.

We operated in Cleveland for 10 years on a 3-cent fare, 3 and 1. We are now operating at 5 cents, 1 penny for a transfer, and 11 tickets for 50 cents.

That is about all there is to it.

Commissioner SWEET. What was the fund upon which you pay the 6 per cent?

Mr. STANLEY. Upon which we pay the 6 per cent?

Commissioner SWEET. You spoke of it as stock. Does that represent the entire cost?

Mr. STANLEY. It was a valuation that was decided upon at the time of the Tayler grant. That valuation was gotten together by not only the city's side of it but the railway side.

Mr. WARREN. That was a valuation of the whole property?

Mr. STANLEY. A valuation of the whole property. We were allowed at that time about \$110,000 a mile for the amount of tracks that we had in the city of Cleveland.

The CHAIRMAN. Including equipment?

Mr. STANLEY. Yes; including equipment and everything.

Mr. WARREN. Did that valuation include anything for unexpired franchises, do you remember?

Mr. STANLEY. Yes. Yes, sir; about three million—\$3,500,000.

Mr. WARREN. That was these term franchises that still had some time to run, I suppose?

Mr. STANLEY. Yes.

Mr. WARREN. And you mentioned starting on 3 and 1, I think. That was the rate of fare?

Mr. STANLEY. That was the rate of fare we decided on at that time, to start on.

Mr. WARREN. What does three and one mean?

Mr. STANLEY. Three cents for a fare and a penny for a transfer.

Mr. WARREN. Was that the lowest rate that you ever had?

Mr. STANLEY. I really do not know whether we ever went below that or not. I can't recall. I think, under the first commissioner, we did operate for a while at 3 cents.

Mr. WARREN. At 3 cents?

Mr. STANLEY. Yes.

Mr. WARREN. Without the transfer charge?

Mr. STANLEY. Without the transfer charge. There was a rebate. The charge was made, but it was rebated.

Mr. WARREN. How was that 3 cents paid—in cash each time?

Mr. STANLEY. Either cash or tickets. A ticket was worth 3 cents.

Mr. WARREN. Those tickets were bought in strips?

Mr. STANLEY. Yes; they were in a strip—six in a strip. Five at 15 cents; that is right.

Mr. WARREN. That cash fare, Mr. Stanley—was that strictly a 3-cent cash fare? Suppose a man got on without any ticket, and he did not have 3 pennies in his pocket but had a nickel, what was the fare to him?

Mr. STANLEY. He paid the nickel.

Mr. WARREN. In other words, the conductor did not make change?

Mr. STANLEY. That is true.

Mr. WARREN. Suppose he had a dime. Did he make change for that?

Mr. STANLEY. Well, we had one line that ran down to the Union Depot that we used to charge a penny for. If he put in a nickel, why, it was all right. If he put in a dime, it was all right. We would keep the dime or the nickel, or whatever he put in.

Mr. WARREN. That is a very short ride, as I recall it?

Mr. STANLEY. It was a mile—about a mile long.

Mr. WARREN. That was from the square down to the Union Station?

Mr. STANLEY. From the square down to the piers.

Mr. WARREN. I should like to turn the witness over to the commission now, because I know you are interested in this subject; and while I think I know something about the subject, I think your questions are apt to be directed to the points that you want to know about; and Mr. Stanley, I think, represents the pioneer company in this so-called service-at-cost plan.

You were the first company in the country, Mr. Stanley, that went into it, were you not?

Mr. STANLEY. Yes.

Mr. WARREN. Is it a term franchise that you have now?

Mr. STANLEY. It is a perpetual franchise. It is a franchise that runs 25 years; but every 10 years they are supposed to renew it. If they do not renew it, the service goes back to the railway company; and then we are supposed to get our money out of it in the last 15 years, at the maximum rate of fare. Our maximum rate of fare to-day is a 6-cent fare and a penny for a transfer.

Mr. WARREN. What fare?

Mr. STANLEY. Six cents, with a penny for a transfer. That is our maximum rate of fare that we can charge. We are not charging it.

Mr. WARREN. Oh, yes. What are you charging?

Mr. STANLEY. Five and one, and 11 tickets for 50 cents.

Mr. STANLEY. Oh, yes.

The CHAIRMAN. Mr. Nash is going to file copies of the franchises with us, is he not?

Mr. WARREN. Yes.

The CHAIRMAN. So there is no need of our inquiring about the terms?

Mr. WARREN. I do not think there is. I think it is more the general principles, the working of it.

The CHAIRMAN. It is the general principles and the effect?

Mr. WARREN. Yes.

The CHAIRMAN. How long has that franchise been in effect?

Mr. STANLEY. Ten years, sir.

The CHAIRMAN. The cost-of-service franchise?

Mr. STANLEY. Yes.

The CHAIRMAN. What fare did you start at?

Mr. STANLEY. We started at three and one.

The CHAIRMAN. What is it now?

Mr. STANLEY. Five and one.

The CHAIRMAN. When was it made five?

Mr. STANLEY. I will read it off to you.

To May 31, 1911, rate E, 3-cent cash fare, 1-cent transfer.

To August 31, 1914, rate F, 3-cent fare, 1-cent transfer, and 1-cent rebate.

To December 14, 1917, rate E, 3-cent cash fare, 1-cent transfer.

To December 25, 1917, rate D, 4-cent cash fare, 3 tickets for 10 cents, 1-cent transfer, and 1-cent rebate.

To April 2, 1918, 4-cent cash fare, 3 tickets for 10 cents, 1-cent transfer.

To April 9—

Mr. WARREN. No rebate?

Mr. STANLEY. No rebate.

Mr. WARREN. What does that rebate mean, Mr. Stanley?

Mr. STANLEY. Well, when you receive the transfer, you pay a penny; and if you do not rebate, of course, the company keeps the penny; but if you rebate, the conductor hands back the penny to the passenger at the time he turns in his transfer.

Mr. WARREN. Oh, yes.

The CHAIRMAN. It is very hard to hear you, Mr. Stanley.

Mr. STANLEY. To August 3, 1918, rate A, 4-cent cash fare, seven tickets for 25 cents, 1-cent transfer.

To August 6, 1919, rate 2d, 5-cent cash fare, five tickets for 25 cents, 1-cent transfer.

Now, the only reason that the five tickets for 25 cents were put in there was as an accommodation to the public. They liked the five tickets, rather than pay a cash fare.

The CHAIRMAN. How long did you operate under that contract before you increased rates?

Mr. STANLEY. Well, up to December 25, 1917.

The CHAIRMAN. That was how many years?

Mr. STANLEY. That is over eight years.

The CHAIRMAN. That was on a 3 and 1 basis?

Mr. STANLEY. That was on a 3 and 1 basis?

The CHAIRMAN. During all of that time was the company meeting the contract provisions?

Mr. STANLEY. Yes; in a way.

The CHAIRMAN. Then you had no difficulty in paying your wages, maintaining your property, and taking care of fixed charges on a 3 and 1 fare from 1908 up to 1917?

Mr. STANLEY. We had a deficit each and every year, which was taken care of in the following year. Otherwise, we got along very well with it.

The CHAIRMAN. Well, from what fund was that deficit paid?

Mr. STANLEY. Under the ordinance we are allowed so much for operating, cents per car-mile, and so much for maintenance, cents per car-mile. After the first year of operation, when we found that it was not sufficient to take care of it, they allowed a sufficient fund, or allowed a special allowance to take care of the deficit of the year before.

The CHAIRMAN. But this fund is created out of the operating revenue?

Mr. STANLEY. Yes.

The CHAIRMAN. Everything comes out of the fare?

Mr. STANLEY. Yes.

The CHAIRMAN. Then, you were able to operate that plant and pay all of the expenses and maintain the property and take care of fixed charges?

Mr. STANLEY. Yes.

The CHAIRMAN. Out of the revenues?

Mr. STANLEY. Yes.

The CHAIRMAN. On the 3 and 1 basis?

Mr. STANLEY. Yes.

The CHAIRMAN. Do you regard the value of that plant as fair?

Mr. STANLEY. No, sir; we were not satisfied with the valuation at the time the settlement was made. They cut our stock down from

par to 55. I will frankly say that if we were allowed at that time about 80, we would have been satisfied.

The CHAIRMAN. How many years had the franchise to go at the time this contract was made?

Mr. STANLEY. Some of them were running out, and others had four, or five, or six, or seven years probably, to go.

The CHAIRMAN. Do you consider that \$3,500,000 valuation for the franchise as fair?

Mr. STANLEY. To some extent.

The CHAIRMAN. You began increasing these charges in 1917?

Mr. STANLEY. Yes.

The CHAIRMAN. Those charges, I understand, work automatically; as the increased cost takes place, the fare increases?

Mr. STANLEY. Yes.

The CHAIRMAN. There has been quite a number of increases here in the last year and a half—four, I think. As I recall your testimony, there have been about four increases in the last year and a half.

Mr. STANLEY. That is, in the fare?

The CHAIRMAN. Yes.

Mr. STANLEY. Yes.

The CHAIRMAN. Now, what effect did those increases have upon the patrons?

Mr. STANLEY. Why, none at all. It had a good deal of effect on the politician, but not on the car rider. I think the car rider realizes that he ought to pay more fare.

The CHAIRMAN. Well, under your contract, does the city maintain strict supervision over expenditures?

Mr. STANLEY. They do.

The CHAIRMAN. And over your accounts?

Mr. STANLEY. They do.

The CHAIRMAN. In what way?

Mr. STANLEY. They have to approve everything that we buy, and they have absolute supervision over our accounts.

The CHAIRMAN. And they have supervision over your contracts as well?

Mr. STANLEY. Yes.

The CHAIRMAN. Are all of the contracts submitted on bids?

Mr. STANLEY. Yes.

The CHAIRMAN. And the city has to approve those bids?

Mr. STANLEY. They have to approve bids.

The CHAIRMAN. How large a force does the city use in that work?

Mr. STANLEY. Well, the cost of the commissioner's office runs anywhere from \$40,000 to \$60,000 a year.

The CHAIRMAN. How many men are employed?

Mr. STANLEY. They have something like 20 or 25 men—25 men.

The CHAIRMAN. Is the cost of maintaining that office charged to the operation of the railway or paid for out of taxes?

Mr. STANLEY. It comes out of the railway.

The CHAIRMAN. It comes out of the railway?

Mr. STANLEY. Yes.

The CHAIRMAN. Then the whole public, as well as the private control of the road, is charged to operation?

Mr. STANLEY. Yes.

The CHAIRMAN. How many accountants are maintained by the public?

Mr. STANLEY. I think they have probably three accountants.

The CHAIRMAN. They devote all of their time to a study of your—

Mr. STANLEY. Accounts.

The CHAIRMAN (continuing). Property?

Mr. STANLEY. Yes. They even inspect our work on the tracks and inspect our cars.

The CHAIRMAN. Does this city supervision, in your judgment, prevent the company, if so disposed, from profiting out of contracts which it makes in supplies with others?

Mr. STANLEY. I do not believe there is any way of profiting from contracts under this scheme.

The CHAIRMAN. Under this scheme?

Mr. STANLEY. No.

The CHAIRMAN. Of course, it has been under the old method—perhaps not in Cleveland?

Mr. STANLEY. I do not know of any that has been done.

The CHAIRMAN. By individuals, I mean the officers of the company.

Mr. STANLEY. Personally, I never have had that occur, that I know of, in my organization. It may have happened, but I do not know of it.

The CHAIRMAN. Well, could that happen under this system of supervision?

Mr. STANLEY. Yes; it could happen.

The CHAIRMAN. Would it not have to be collusion between the officer of the railway and that of the city?

Mr. STANLEY. Sure.

The CHAIRMAN. It is very hard to get collusion among three parties, is it not?

Mr. STANLEY. Yes, sir; it is.

The CHAIRMAN. Well, during the whole time the capital on the fixed charges had been paid upon the investment?

Mr. STANLEY. Yes.

The CHAIRMAN. Had they been making any extensions and improvements since this contract was made?

Mr. STANLEY. We are making five extensions this year.

The CHAIRMAN. What is the cost of those?

Mr. STANLEY. The extensions are running probably a mile to an extension, which would make it anywhere from 5 to 7 miles of extension this year; and the cost of those extensions would run from \$50,000 to \$60,000 a mile.

The CHAIRMAN. Where did you get the money?

Mr. STANLEY. From our stockholders.

The CHAIRMAN. You sold new stock?

Mr. STANLEY. We sold new stock.

The CHAIRMAN. What was that stock sold at?

Mr. STANLEY. At par. We can not sell it at any less.

The CHAIRMAN. Was there any trouble in disposing of it?

Mr. STANLEY. We have not had any trouble. We had trouble when we first started the grant. That might be of interest to you.

The CHAIRMAN. Was that sold to the stockholders locally?

Mr. STANLEY. Yes. I would be very glad to furnish you that. We have with our company 5,202 stockholders. Seventy per cent of those are local stockholders—Cleveland stockholders. All the trust companies—three of them—in Cleveland control possibly anywhere from \$1,000,000 to \$2,000,000 worth of stock for estates, widows, and orphans.

The CHAIRMAN. What was the total amount of stock issued for these new extensions?

Mr. STANLEY. That I can't say offhand. I have not the record here.

The CHAIRMAN. It is comforting to be able to find one street-car company in the country that can sell its stock at par.

Mr. STANLEY. Yes.

The CHAIRMAN. Is that the result of your contract with the city?

Mr. STANLEY. Yes and no.

The CHAIRMAN. What are the conditions in Cleveland that establishes this credit for your company?

Mr. STANLEY. If I might read this quotation here from Mr. Baker. Hon. Newton D. Baker, upon taking office as mayor of Cleveland, January 1, 1912, wrote a letter, in which he said:

My advice and hopes are that from now on, by cooperation and sympathy, the company and the city administration can work out their respective parts of what is, in effect, a common trust of the public welfare. The interests of the owners of the property and the people whom it serves are one

Now, there is the secret. If the city and the railway company work together, the plan will be successful.

The CHAIRMAN. Is there a real confidence between the public and the railway company?

Mr. STANLEY. There has been; yes, sir.

The CHAIRMAN. Is there to-day?

Mr. STANLEY. Yes and no. A man might become mayor that cares more for his affiliations with the unions than he would with the railroads.

The CHAIRMAN. Will you speak a little louder, please?

Mr. STANLEY. He would do things for the unions and would not care anything about what he did for the companies.

The CHAIRMAN. Well, just elaborate on that a little. I don't know what you mean.

Mr. STANLEY. Well, we just got through a strike in Cleveland.

The CHAIRMAN. I thought you would lead up to that.

Mr. STANLEY. Yes.

The men were asking for more wage. On May 1 they came into my office—the union did—and said to me, "Now, we are not going to ask for an increase. If you won't ask to decrease our wage, we won't ask to have it increased." Detroit comes along in six weeks—

Mr. WARREN. What were they getting then, Mr. Stanley?

Mr. STANLEY. They were getting 48 cents. That was high, and the low was 42.

Detroit comes along and pays the men 60 cents, after a strike. Our men immediately came to me and said, "Now, we are going to ask for more wages." "Well," I said, "What about May 1?" "Well, that don't make any difference; we are going to get more." I said, "All right; now, I don't propose to sit here and argue and talk

with you on the wage question. We will take our troubles right to the city council and see if we can not fight it out there." The mayor immediately—of course, they went to call on the mayor—and the mayor said, "Of course, you are entitled to 60 cents," and that is all there was to it. Now, we did go before the council, and they did get their 60 cents. I got an increase in operating cost, and I have an increase in maintenance. I got the maximum rate of fare changed from 4 cents and a penny for transfer to 6 cents and a penny for transfer, and there is to be arbitration on whether we are entitled to 7 per cent on our stock or 6 per cent.

The CHAIRMAN. Well, in the first place—

Mr. WARREN. What did you mean by saying on May 1?

Mr. STANLEY. That was the time that the union had a right to open their contract for a wage.

Mr. WARREN. If they do not do it within 30 days—

Mr. STANLEY. If they do not do it within 30 days it carries over the next year.

Mr. WARREN. And they had not opened it up?

Mr. STANLEY. Had not opened it up.

The CHAIRMAN. Does this contract fix a maximum charge of 6 cents?

Mr. STANLEY. It fixes the maximum charge at 6 cents and a penny for a transfer.

The CHAIRMAN. And what return on the capital does the contract fix?

Mr. STANLEY. Six per cent.

The CHAIRMAN. Six per cent?

Mr. STANLEY. Yes.

The CHAIRMAN. In this negotiation, you say the union wanted 60 cents an hour?

Mr. STANLEY. Yes.

The CHAIRMAN. And then the stockholders came along and wanted 7 per cent?

Mr. STANLEY. Yes.

The CHAIRMAN. What difference did it make to the stockholders if the union got 40 or 50 or 60 cents an hour so long as the stockholders got their return?

Mr. STANLEY. Well, the stockholders used the same argument that the men were using, that the high cost of living was so that they had to have more wages; and if that applied to the union, it certainly applied to the stockholders.

The CHAIRMAN. Well, but under your contract you say the union can come in on the 1st of May each year and ask for an adjustment of wage.

Mr. STANLEY. But we can meet that any time on any change we want to make in the contract.

The CHAIRMAN. Even as to the return upon the capital?

Mr. STANLEY. Yes; that can be arbitrated as well as anything else. Now, the contract has been changed—

The CHAIRMAN. Can the city reduce that return?

Mr. STANLEY. Can they reduce it?

The CHAIRMAN. Yes.

Mr. STANLEY. Not below 6.

The CHAIRMAN. You can only arbitrate for an increase?

Mr. STANLEY. Yes.

The CHAIRMAN. Well, supposing labor gets 60 cents an hour; can you then operate on a 6-cent fare?

Mr. STANLEY. Yes; I think we can operate on 6 and 1, on 60 cents; but if the wages go up above 60 cents, I doubt very much whether we could operate on that.

The CHAIRMAN. Suppose the wage did go up to the Massachusetts basis and you found that you could not operate under a 6-cent fare; what would be your remedy?

Mr. STANLEY. A change of that maximum, of course.

The CHAIRMAN. Then, as a matter of fact, if you are going to have a cost-of-service scheme of operation, should there be any maximum fixed to the charge?

Mr. STANLEY. In a franchise, there should not be any maximum or minimum rate of fare. Eliminate that, and your troubles are over.

The CHAIRMAN. Are you satisfied that this scheme is as good a one as can be created for the utilities and the public?

Mr. STANLEY. I do not know. I know that it has carried us through these 10 years, and I know we have been on easy street those last four or five years, which no other railroad company in this country has been.

The CHAIRMAN. Now, can you suggest a better plan?

Mr. STANLEY. No; I can not.

The CHAIRMAN. Do you think this is as good a plan as can be devised to take care of the companies, as well as the public, during good as well as during bad times?

Mr. STANLEY. Yes.

The CHAIRMAN. Do you feel that this plan establishes a good credit for the company?

Mr. STANLEY. Without a doubt. I do not know what a banker is in my business.

The CHAIRMAN. And creates an absolutely safe return for capital?

Mr. STANLEY. Yes.

The CHAIRMAN. And assures labor a fair wage?

Mr. STANLEY. Yes.

The CHAIRMAN. And the public a good service?

Mr. STANLEY. Yes.

The CHAIRMAN. What does the State commission have to do with the street railways in Cleveland?

Mr. STANLEY. You have to go before the State commission to get an increase in capitalization. Now, they have never bothered us. Whatever we wanted from the State commission, with the recommendation of our street-railway commissioner, they have granted.

The CHAIRMAN. Now, looking forward to the best sort of scheme that can be evolved, do you feel that the State commission should have anything to do with the control of the rates, service, extensions, betterments, expenditures, and accounting of your company?

Mr. STANLEY. It surely depends entirely upon the personnel of any board that you go to.

The CHAIRMAN. Well, should the State commission have anything to do with the things that I have mentioned?

Mr. STANLEY. Should they have that?

The CHAIRMAN. Yes.

Mr. STANLEY. Yes; I think so.

The CHAIRMAN. What should they have to do with it?

Mr. STANLEY. I think we would be safer in going to the State commission than we would in going to a city commission.

The CHAIRMAN. Well, do you believe that the State commission, then, should have that supervision over your company, which is now maintained by the city?

Mr. STANLEY. The fact of the matter is that they have supervision over our company to-day.

Mr. WARREN. The State commission?

Mr. STANLEY. As well as the city.

The CHAIRMAN. I understood you to say that it does not have that supervision.

Mr. STANLEY. As well as the city, because when we appear before the State commission for an increase in capitalization we have to show our expenditures.

The CHAIRMAN. Oh, that is true, but the State commission has nothing to do with the service furnished by your company.

Mr. STANLEY. Not at all.

The CHAIRMAN. Or with its construction?

Mr. STANLEY. No.

The CHAIRMAN. Or with its operation?

Mr. STANLEY. No.

The CHAIRMAN. Or its accounts?

Mr. STANLEY. Well, only as far as—

The CHAIRMAN. The only supervision is as to capitalization. The city has that entirely. Now then, should the State or city have that supervision?

Mr. STANLEY. Personally, I don't care which has it.

The CHAIRMAN. Well, you must have an opinion. You have been in this business for a long while.

Mr. STANLEY. I know that the city has had it, and we have not had any trouble so far.

The CHAIRMAN. Are you satisfied with the present arrangement?

Mr. STANLEY. Am I?

The CHAIRMAN. Yes.

Mr. STANLEY. Yes; I am.

The CHAIRMAN. What was the effect upon the employees, speaking about service and efficiency, since this contract was made?

Mr. STANLEY. Do you mean as to whether or not it was better or poorer?

The CHAIRMAN. Yes.

Mr. STANLEY. I do not think the plan had anything to do with it. I think the times themselves have had a good deal to do with it, but the men are not as efficient now as they were four or five years ago.

The CHAIRMAN. Is there anything in this system that compels the company to exercise initiative and economies in the service?

Mr. STANLEY. Well, I think it is shown very clearly that there must have been some economy in the service by operating that railroad for 10 years on a 3-cent basis.

The CHAIRMAN. But under this plan, where your wages and rates work up and down automatically, can you not conceive that the companies may be extravagant, that their operation may be very ex-

travagant, and the costs piled up all the time, without any protection whatever to the public?

Mr. STANLEY. That might happen; yes.

The CHAIRMAN. Because the company itself is protected by its returns upon the capital.

Mr. STANLEY. Sure.

The CHAIRMAN. Now, if that situation should develop, how could the public protect itself against an increased charge and increased operating costs?

Mr. STANLEY. Well, of course, our franchise gives the city the right to take over our property at any time at 110.

The CHAIRMAN. Then the protection to the public grows out of the fact that they can buy that plant at 110?

Mr. STANLEY. Sure.

Mr. WARREN. Does the city comptroller control your expenses and supervise them?

Mr. STANLEY. If he sees any extravagance he can stop it.

The CHAIRMAN. That is what I am trying to develop.

Mr. STANLEY. Yes.

The CHAIRMAN. I am trying to find out how the public can protect itself against extravagant operation.

Mr. STANLEY. I will read you a clause from the franchise that will probably give it to you.

The CHAIRMAN. It seems to me that that is a very important point in connection with this cost-of-service plan, because you can not have something that gives absolute protection to capital and no protection to the public.

Mr. WARREN. I understand that the city comptroller of Cleveland has absolute control over that.

The CHAIRMAN. That is what I wanted to find out.

Mr. WARREN. Yes.

Mr. STANLEY. Section 10 of the franchise reads:

Immediately upon the taking effect of this ordinance there may be designated by the city a city street-railroad commissioner, which designation shall be made by the mayor of the city, subject to the approval of the city council. The city reserves the right, at any time, and from time to time, to remove the street-railroad commissioner designated by it, such removal to be by the mayor, and to fill the vacancy in the manner provided for original designation; and the city shall forthwith upon the naming of any city street-railroad commissioner notify the company in writing of the name and address of such commissioner. The city street-railroad commissioner shall act as the technical adviser of the council of the city of Cleveland in all matters affecting the interpretation, meaning, or application of any of the provisions of this ordinance and of action thereunder affecting the quantity or quality of service or the cost thereof or the rate of fare. He shall keep always informed as to all matters affecting the cost or quality or quantity of service furnished, the receipts and disbursements and property of the company, the rate of fare, the vouchering of expenditures; and if he disapproves of the vouchering of expenditures, or of the manner of keeping accounts or other matter affecting the bookkeeping of the company, he shall at once take the matter up with the company; and in case of disagreement the matter shall at once be submitted to the committee on standard classification of accounts of the American Street & Interurban Railway Accountants' Association, or to such person or persons upon whom the regulation of such matters may from time to time be devolved by law; and the decisions of such committee or person or persons, not inconsistent with the provisions of this ordinance, to whom this question shall be submitted, shall be final.

The CHAIRMAN. Now, will you let me give you a concrete example? Suppose that you had agreed to pay labor 60 cents an hour. Could the city exercise any veto over that order?

Mr. STANLEY. Yes; I have always been very careful to get the approval of the city in such a thing.

The CHAIRMAN. Well, you have as a matter of policy, but as a matter of fact, can the city veto that wage agreement?

Mr. STANLEY. Yes.

Mr. WARREN. Through the allowance, Mr. Stanley?

Mr. STANLEY. Through the allowance. They would not give us enough allowance to take care of it.

The CHAIRMAN. I did not get that matter of the allowance very clearly.

Mr. WARREN. Explain that allowance matter, Mr. Stanley.

Mr. STANLEY. All right. In the operating allowance, the city allows us so much a car-mile to operate our road. Now, if the wage goes up above that allowance, they would absolutely refuse to increase our allowance, and we could not pay the men.

Mr. WARREN. That allowance is for all the operating expenses, is it not?

Mr. STANLEY. Yes.

Mr. WARREN. Including wages?

Mr. STANLEY. Yes.

The CHAIRMAN. Then, the city can prevent the pyramiding of wages or any other operating expenses?

Mr. STANLEY. Yes; they can.

The CHAIRMAN. Then, the city has a double protection against extravagant operation?

Mr. STANLEY. Yes, sir.

The CHAIRMAN. One by curtailing your charges, and the other by taking over your property?

Mr. STANLEY. Yes. They prescribe the service given. They tell us how many cars we can operate, and operate them at a certain cost; so they have a check there also.

Mr. WARREN. Can you make a contract without their approval?

Mr. STANLEY. Yes.

Mr. WARREN. Assume, then, that these agreements with the men are what they purport to be, contracts, it is not only as a matter of caution but as a matter of necessity that you should submit the figures to the city, is it not?

Mr. STANLEY. Yes.

Mr. WARREN. What is the maintenance allowance?

Mr. STANLEY. What does it amount to to-day?

Mr. WARREN. No; but how is that fixed?

Mr. STANLEY. That is fixed by the council at 9 cents a car-mile.

Mr. WARREN. Do you mean now or it always has?

Mr. STANLEY. It is now. It started with 5, and it has finally got up to 9.

Mr. WARREN. That is, they allow 5 cents for each car-mile you run?

Mr. STANLEY. Yes.

Mr. WARREN. For the maintenance of the property?

Mr. STANLEY. Yes.

Mr. WARREN. Does that include renewals?

Mr. STANLEY. That does not include depreciation.

Mr. WARREN. Well; it includes all the current maintenance?

Mr. STANLEY. Yes; the ordinary maintenance.

Mr. WARREN. Well; is there any other allowance for depreciation?

Mr. STANLEY. The depreciation is taken care of through the reproduction value. Now, if we scrap a car, we scrap that car at the reproduction value. To-day any car that we scrap would be scrapped at \$6,000 a car. That is how the depreciation is taken care of.

Mr. WARREN. When you were operating on a 3-cent fare and a 1-cent transfer—the lowest rate that you operated under—

Mr. STANLEY. Yes.

Mr. WARREN (continuing). Did you happen to make any overdrafts on your operating reserves?

Mr. STANLEY. Yes; we had some overdrafts, but it was taken care of in the following year.

Mr. WARREN. Afterwards?

Mr. STANLEY. Yes.

Mr. WARREN. What caused the overdraft?—The allowance was not large enough?

Mr. STANLEY. The allowance was not sufficient to take care of it.

Mr. WARREN. So the allowance was increased?

Mr. STANLEY. Yes; the allowance was increased.

Mr. WARREN. And that increased, I suppose, the operating expenses?

Mr. STANLEY. Sure.

Mr. WARREN. Did it increase it enough to affect the rate of fare?

Mr. STANLEY. It did in time; yes.

Mr. WARREN. And during that same time, how about new cars? Were they charged to depreciation or capital? Did you have to buy some new cars and charge them to capital?

Mr. STANLEY. All new cars were charged to capital, but the money for the scrapping of the cars—the reproduction value—was, of course, applied to the new cars. In other words, if we scrapped a car at \$6,000 and we paid \$10,000 for the new car, the \$4,000 was charged to capital.

Mr. WARREN. Can you give a statement to the commission of the increase allowed to the operating allowance—the increase made in the operating allowance?

Mr. STANLEY. Since the Tayler advance?

Mr. WARREN. Yes. It is based on so much per car-mile, I understand, always; is it not?

Mr. STANLEY. Yes.

Commissioner GADSDEN. Mr. Warren, will you bring out from him the effect of the increase in the rates on the revenues that he gets?

Mr. WARREN. Yes; I will.

Mr. STANLEY. I can tell you right offhand that the operating expense on March 1, 1910, was 11½ cents.

Mr. WARREN. And what is it now?

Mr. STANLEY. On December 31, 1919, it was 19½ cents, and to-day it is 23½.

Commissioner MEEKER. Mr. Warren, did you find out what incentive there is for efficiency, if there is any sliding-scale arrangement with the city?

Mr. WARREN. There is no sliding scale in your case, is there, Mr. Stanley?

Mr. STANLEY. In what?

Mr. WARREN. In the rate of return.

Mr. STANLEY. No.

Mr. WARREN. To the investors.

Mr. STANLEY. No.

Mr. WARREN. Is there an arrangement for a bonus to the employees or to the officers?

Mr. STANLEY. No.

Mr. WARREN. The salaries are fixed?

Mr. STANLEY. Yes.

Mr. WARREN. The salaries may be changed, but I suppose only by a larger allowance for operating expenses?

Mr. STANLEY. That is true.

Mr. WARREN. Unless you can save in some other respect?

Mr. STANLEY. Yes.

Mr. WARREN. Now, you have heard Mr. Gadsden's inquiry. What has been the effect? You have frequently had occasion to increase your rate of fare?

Mr. STANLEY. Yes.

Mr. WARREN. How has that affected the riding by people, the traveling? Have you ever noticed any difference?

Mr. STANLEY. Yes; I can give you that.

Commissioner MEEKER. Perhaps you had better file that book with the commission.

Mr. WARREN. I have an idea that that is a vade mecum, Mr. Commissioner.

I would like to know what the effect of the fare on riding has been.

Mr. STANLEY. Of course, there has been some less riding. I do not think it amounts to over 1 per cent.

Mr. WARREN. One per cent?

Mr. STANLEY. Yes. I think we carried 375,000,000 passengers the year before last, and last year we carried something like 362,000,000.

Mr. WARREN. But I mean more closely than that, Mr. Stanley. These changes in rates, changes in fares, go into effect automatically, do they not?

Mr. STANLEY. Yes.

Mr. WARREN. For instance, this increase of wages that you have recently made; if your operating income is not large enough to meet it your rate of fare will automatically go up when? On the first of the month or the first of the quarter?

Mr. STANLEY. The moment it reaches—

Mr. WARREN. The moment the barometer goes down?

Mr. STANLEY. Yes; the moment it reaches \$300,000, then the fare goes up.

Mr. WARREN. When it reaches \$300,000 the fare goes up?

Mr. STANLEY. Yes.

Mr. WARREN. Now, referring to those increases in fares that you have made from time to time, how has the public received it? Have they stopped riding in part, or have they ridden just as much?

Mr. STANLEY. Very nearly as much; yes. I do not think it has changed very much.

Mr. WARREN. You would say to the commission, would you, that there has been no appreciable effect on the traffic?

Mr. STANLEY. Well, there has been this effect: We have not had any increase in rides. We usually run along about 6 to 8 per cent increase from year to year. Now, this last—

Mr. WARREN. In traffic?

Mr. STANLEY. In traffic.

Commissioner SWEET. Is that about in proportion to the growth of the city?

Mr. STANLEY. Yes. Since we have gone to the higher fare there has been a decrease of about 1 per cent, showing, you see, that there has been about 8 or 9 per cent loss.

Mr. WARREN. Well, what period would that loss cover?

Mr. STANLEY. I think it covered all of last year.

Mr. WARREN. All of last year?

Mr. STANLEY. Yes.

Mr. WARREN. That was 1918?

Mr. STANLEY. 1918.

Mr. WARREN. Well, have you followed the statistics of street railways—other companies—sufficiently to have noticed, Mr. Stanley, that, regardless of fare increases, nearly all of the companies lost traffic last year?

Mr. STANLEY. Now, here I will give you the year 1917: The total number of passengers carried was 398,000,000. In 1918 it was 375,000,000, showing, you see, that there was a loss there of about 20,000,000.

Mr. WARREN. And when was the increase of fare with respect to 1918—the last one?

Mr. STANLEY. August 4, 1918.

Mr. WARREN. But you did not answer my other question because you were looking for that figure. Did you notice, or did you follow the street-railway figures enough to have noticed whether or not in 1918 the traffic on nearly all street railways fell off somewhat?

Mr. STANLEY. Yes.

Mr. WARREN. That is true, is it not?

Mr. STANLEY. That is true.

Mr. WARREN. Even on companies which made no change of fare whatever during the year?

Mr. STANLEY. That is true.

Mr. WARREN. So that would account for a part of that falling off?

Mr. STANLEY. Yes.

Mr. WARREN. And that is the number of passengers; in other words, it is the measure of the traffic?

Mr. STANLEY. That is true.

Mr. WARREN. Those figures?

Mr. STANLEY. Yes.

Mr. WARREN. And that decrease is no more than the decrease of other companies—many other companies?

Mr. STANLEY. I would not say it was; no.

Mr. WARREN. It is no more than the decrease of some that I happen to know.

Mr. STANLEY. No.

Commissioner SWEET. You say that Judge Tayler was the author of this plan?

Mr. STANLEY. Judge Tayler was the author of the plan; yes.

Commissioner SWEET. Was he the judge of one of the lower courts?

Mr. STANLEY. He was judge of the Federal court in Cleveland.

Commissioner SWEET. The Federal court?

Mr. STANLEY. Yes.

Commissioner SWEET. How did the matter come before him?

Mr. STANLEY. The matter came before him by the railway and the city administration agreeing to submit it to Judge Tayler.

Commissioner SWEET. He was on the bench at the time?

Mr. STANLEY. He was on the bench at the time.

Commissioner SWEET. Did he inaugurate the plan, or was it submitted to him by some one else and approved by him?

Mr. STANLEY. He had both sides, and he gave a decision, and then we put it into use. It was passed by the city council in Cleveland.

Commissioner SWEET. Yes; but in the argument before him was this plan, either in whole or in part, recommended by either side—by the city or by the company?

Mr. STANLEY. No; he thought of it himself.

Commissioner SWEET. He thought of that himself?

Mr. STANLEY. Yes.

Commissioner SWEET. Have you given any personal attention to the plan now that is used in Cincinnati?

Mr. STANLEY. Why, I do not think the Cincinnati plan is much different from what our plan is.

Commissioner SWEET. They got their idea largely from you, did they not?

Mr. STANLEY. Entirely.

Commissioner SWEET. But there are some features of their plan that differ quite widely from yours; are there not?

Mr. STANLEY. Yes; I think so. I understand they—

Commissioner SWEET. Do you regard those changes as improvements or otherwise upon your plan?

Mr. STANLEY. Well, I really don't know.

Commissioner SWEET. You have not given that enough study?

Mr. STANLEY. I have not given it enough study to know.

Commissioner SWEET. To pass an opinion on it?

Mr. STANLEY. Yes; that is true.

Commissioner SWEET. I understand that the commissioner has been appointed or is, under the charter, appointed by the mayor?

Mr. STANLEY. He is appointed by the mayor.

Commissioner SWEET. During the 10 years that this plan has been in operation have there been several commissioners?

Mr. STANLEY. There have been three.

Commissioner SWEET. Are they political appointments?

Mr. STANLEY. Political appointments.

Commissioner SWEET. The mayor has usually appointed a member of his own party?

Mr. STANLEY. Always.

Commissioner SWEET. Always?

Mr. STANLEY. Yes.

Commissioner SWEET. Have they been broad-gauge men or politicians?

Mr. STANLEY. We have been very fortunate in having very good commissioners.

Commissioner SWEET. Men who have worked honestly for the welfare of the public and who have cooperated with the company?

Mr. STANLEY. Exactly.

Commissioner SWEET. Are there other street-railway companies in Cleveland?

Mr. STANLEY. We have the only one.

Commissioner SWEET. You are the only one?

Mr. STANLEY. Yes.

Commissioner SWEET. The entire street-railway system is under your control?

Mr. STANLEY. Yes.

Commissioner SWEET. Do you think, Mr. Stanley, that if a plan similar in general principles to yours were adopted by the street railways of the country it would relieve the situation that is now bound to exist?

Mr. STANLEY. Yes; I think it would help to relieve it.

Commissioner SWEET. Do you think it would help to relieve it materially?

Mr. STANLEY. Yes; I do. You know the city of Cleveland does a great many things for the railway. We operate over eight bridges. One of those bridges cost \$5,000,000. Now, we do not pay a cent for rental in going over that bridge, and at each end of the bridge they have subways, and, as I say, that one particular bridge cost \$5,000,000. Now, we do not have to repave.

Commissioner SWEET. You do not pave between the tracks?

Mr. STANLEY. No; the city is supposed to do that.

Another thing: For the past five or six years, a great many of our extensions have been paid by the real estate men.

Commissioner SWEET. Abutting owners?

Mr. STANLEY. Yes. They have assessed the real-estate men, the abutting owners, \$1 to \$2 a running foot. That money goes to the railway company so as to make that extension or help to make it.

Commissioner SWEET. You mean where new extensions have been ordered by the council?

Mr. STANLEY. Exactly. Out in the country, where they want an extension to develop a certain part of the city, they come to us and say, "We would like to have a road out there." We will say, "All right; how much can you afford to pay toward it?" And in five extensions that I can name we have been paid for it.

Commissioner GADSDEN. Fully?

Mr. STANLEY. Sir?

Commissioner GADSDEN. How much did the company put up?

Mr. STANLEY. Well, we have taken these extensions and put probably a single track through it, Mr. Gadsden.

Commissioner SWEET. What?

Mr. STANLEY. Laid a single track.

Commissioner SWEET. Yes?

Mr. STANLEY. Where we were developing the territory, so as to have the traffic there when the time comes to lay the second track.

Commissioner SWEET. Your car service in that locality would be, of course, in proportion somewhat to the business?

Mr. STANLEY. Yes. Now, I will tell you how we handle it. We apply that money to the receipts of that line. If the line was taking

20 or 25 cents a car-mile, we would take part of that money out there, so as to raise it to the operating expenses allowed.

Commissioner GADSDEN. The average car-mile?

Mr. STANLEY. Yes.

Commissioner GADSDEN. What is your average car-mile in Cleveland?

Mr. STANLEY. Forty-two.

Commissioner GADSDEN. That is very much higher than most companies.

Mr. STANLEY. Yes.

Commissioner GADSDEN. You have a great density of traffic in Cleveland?

Mr. STANLEY. Our tripper service is four times more than our base tale. There is no other line in the United States that does that.

Commissioner GADSDEN. Is not that the real reason that you have been able to charge 3 cents, while other properties charge 5?

Mr. STANLEY. Yes.

Mr. WARREN. Mr. Stanley, with all of these things that you say the city relieves you from—like bridge assessment, paving, and things of that sort—if you were charged, as you used to be, or as other companies are in those respects, how much below 5 cents would your fare fall, when you have been making it 3 cents and 1 cent?

Mr. STANLEY. I doubt very much whether 5 cents was ever high enough to pay a railway company. I mean by that that railway companies never knew what depreciation was up to 5 or 10 years ago.

Mr. WARREN. In other words, you think this low fare has been made possible largely because of the concessions that the city has made to the company?

Mr. STANLEY. To some extent, and, of course, to the reduction in our capitalization.

Mr. WARREN. Yes.

Mr. STANLEY. At the time we made our settlement with the city, the particular line that my father and Mr. Samuel Andrews promoted we offered to turn over our stock to the city at cost, plus 6 per cent, and they would not take it.

The CHAIRMAN. Do your lines sprinkle the streets or any part of them?

Mr. STANLEY. Do they sprinkle?

The CHAIRMAN. Yes.

Mr. STANLEY. They sprinkled, but the city realized that that was a burden to us, and they said, "Now, we will relieve you from sprinkling, and we will pay you for flushing the streets"; and we get out of that somewhere from \$15,000 to \$20,000 a year, but it used to cost us for sprinkling something like \$40,000 or \$50,000. Unless you work together, unless the city government and the railway—

The CHAIRMAN. I want to ask you this: You say it used to cost you \$40,000 or \$50,000, and now you do it for \$20,000?

Mr. STANLEY. No. At one time, we sprinkled the streets at a cost of \$30,000 or \$40,000. Then the city saw it was a burden to the car riders, and they said, "Now, you flush the streets for us, and we will pay you for flushing them." So they relieved us of sprinkling. We flushed the streets, and we are getting out of that anywhere from \$15,000 to \$20,000 a year.

Commissioner SWEET. You mean they pay to you more than actual cost?

Mr. WARREN. They pay for the service; do they not?

Mr. STANLEY. Yes.

Commissioner SWEET. Are your physical properties taxed?

Mr. STANLEY. No; we have sprinklers of our own.

Commissioner SWEET. No; I do not mean sprinklers. Is your property taxed as it is in other cities?

Mr. WARREN. Real estate, for example?

Commissioner SWEET. Yes; real estate.

Mr. STANLEY. Oh, yes; we are taxed. The tax runs about 154 per car-mile.

Mr. WARREN. The general theory is to take as much as possible off the car riders and give them as low a fare as possible?

Mr. STANLEY. Sure.

Commissioner MEEKER. Do you think it would be a better arrangement to have a sliding scale so as to induce the company to make improvements in service and introduce greater efficiency in connection with the management?

Mr. STANLEY. No; I rather think that a fair rate should be given to the company on its capitalization. I doubt very much—in fact, I am satisfied that we could not to-day sell any of our stock at 6 per cent. We would have to put our stock on the market below par. Now, if that is so, the city should give us a higher rate of interest and allow us to sell our stock at par, or above par.

Commissioner MEEKER. Do you think you are operating just as efficiently as you could if you had an incentive to make a larger profit, a larger income?

Mr. STANLEY. I think so; yes.

Commissioner MEEKER. By reducing the expense or increasing the income?

Mr. STANLEY. Yes; I think so.

The CHAIRMAN. We will stand adjourned until 8 o'clock to-night.

(Whereupon, at 5 o'clock p. m., a recess was taken until 8 o'clock p. m.)

EVENING SESSION.

The commission met at 8 p. m., pursuant to adjournment.

Mr. WARREN. Before I call a witness I would like to put in a telegram, if I may, from Mr. Paul Shoup, of the Pacific Electric Railway, addressed to Mr. Pardee, president of the association. It is dated Los Angeles, Calif., July 19:

There are 27 operating electric-railway companies in California, representing several hundred millions of dollars in actual cash invested. Of these only one actually earned 5 per cent return on investment during year 1918, and that was due to extraordinary shipyard activities. Nineteen failed to earn interest charges on their debts. One more earned its interest charges only because bondholders of one issue waived collection. Another road showed net income above all charges only because it has no bonded debt, but earned only 2½ per cent on money invested. Also true of three roads which earned about 3 per cent on money invested. These figures illustrate the desperate situation of electric lines in California. Wages and cost of materials have increased practically in same proportion as in the East. Increases in wages, for example, since 1915 of conductors and motormen have averaged above 50 per cent. Cost of ties has more than doubled. Our State taxation is on basis of gross income, which

was increased from 4 per cent in 1913 to 5½ per cent in 1918, due to State extravagance, resulting in increased rates of taxation for public service corporation. In the same period value of our properties, as measured by market quotations for the securities and by earnings above fixed charges carried to surplus, has decreased fully 40 per cent. In California the jitneys and motor trucks competing with electric lines are not only not taxed for maintenance of highways but are permitted to operate over the very pavements which electric lines are required to build and maintain for all space occupied by tracks and 2 feet outside thereof. In addition, the State income tax on electric lines is in part used to maintain system of good roads generally so freely used by motor trucks and jitney competitors.

Within last 30 days electric railways of State have again generally had to face further demands for increased wages from conductors and motormen, and they do not know which way to turn to secure the money to satisfy in any degree these requests, and one of the largest systems is threatened with strike if demands are not granted. Our costs of construction and maintenance have been tremendously increased because of high standard of track construction and paving demanded by public where streets and other highways are used. The old 60-pound T rail has been superseded by public ordinance with 128-pound grooved rail for interurban cars and light paving of old days has been superseded by concrete foundation, asphaltum-top pavements costing two and one-half times as much. In some California cities 6-cent fares have been granted and in a number of other cities applications for that rate are pending. Very considerable increases in freight and passenger rates have been granted interurban lines, but necessary relief has not followed. It is my judgment that inasmuch as the 5-cent piece has only two-thirds of the purchasing power that it had three or four years ago, the street-car nickel must be replaced with a 7½-cent fare, and coin should be minted accordingly. All interurban fares will have to be increased in proportion. Further than that, because of increased costs of maintenance due to higher stands of competition of motor trucks, jitneys, and privately owned automobiles, the following relief measures are proposed: (1) Reduction in taxation from 5½ per cent to 4 per cent of gross; (2) elimination of franchise tax entirely; (3) elimination of paving obligation and maintenance of paving; (4) reduction in number of free riders; (5) service on basis of meeting public demands and not arbitrary requirements; (6) elimination of obligations to beautify landscape with iron poles instead of wooden poles, to put wire underground, separate grades, sprinkle or light streets except where public bears all or larger part of expense; (7) free use of one-man cars wherever adapted to service; (8) use of shuttle-car service where service to and from certain points is not justified by business offered; (9) restriction of street-car fares at even 7½ cents to thoroughly settled districts, zone systems to be provided elsewhere, and transfers to be made more strictly limited as to number of points and extent of use. It may not be possible for national legislation to take care of these subjects, but if not, uniform laws should be passed by various States looking toward this relief, and if it is necessary to have subject taken up through constitutional amendments, then it should be taken up that way, for situation is desperate and only prompt application of relief measures by the public expressed through its governments will save the electric railway service. It must be remembered that this service is vitally essential to the country and that no satisfactory substitute has been found.

PAUL SHOUR.

Commissioner SWEET. Where is that from?

Mr. WARREN. This is from Los Angeles, Calif.

The CHAIRMAN. He is president of the Pacific Electric Co.?

Mr. WARREN. Yes. I did not read the word "stop" as it occurred through the telegram. I did not think that would help.

The CHAIRMAN. Do you recall whether the California commission has complete control over the rates of these railway utilities?

Mr. WARREN. I do not know, Mr. Chairman.

The CHAIRMAN. I think it has.

Mr. WARREN. I think it has; that is my impression. I am advised that they have full control now.

The CHAIRMAN. That was my understanding.

Mr. WARREN. Yes.

The CHAIRMAN. Well, is it not true that, at least during the early months of the war, the California commission met every demand on the part of the public utilities? The utilities of all kinds were getting along very well in that State?

Mr. WARREN. It was my impression that the California Commission was very prompt.

The CHAIRMAN. What has happened in the last few months?

Mr. WARREN. I suspect that the costs have mounted so fast that it has not been possible to ask for the relief and get it; but that is only my own individual judgment. I do not believe the commission appreciates the rapidity with which these costs have overwhelmed some of the companies, and where a case is to be presented to a commission it has to be prepared before it is presented, of course; the company has to decide on the tariff it wants to ask to have permission to operate and prepare the exhibits and data necessary to prove the case. The burden of proof, I think, universally—certainly it is so in Massachusetts—is on the company.

The CHAIRMAN. Have the companies to your knowledge been diligent in presenting their claims to the California Commission?

Mr. WARREN. That I could not say. I know that some companies have, because some in which I am interested got relief some time ago, but those did not happen to be street-railway companies. And the labor item in the street railways is so very large that under the old 5-cent fare it takes in some cases half the receipts, and the unsettlement of labor is a very difficult thing to deal with. Even if an agreement is signed up for a year or two years, under the effect of the war the men will become restive and uneasy and oftentimes three months after the agreement has been made they will intimate that unless some further relief is given they will have to strike; and very likely that is what has been happening in California, because labor is more or less active in California at all times, I think.

STATEMENT OF MR. CHARLES A. FAGAN.

Mr. WARREN. Your full name?

Mr. FAGAN. Charles A. Fagan.

Mr. WARREN. You are one of the receivers of the Pittsburgh Railways?

Mr. FAGAN. Yes.

Mr. WARREN. And Mr. George is one of your two associates, I think, who was here the other day.

Mr. FAGAN. Yes, sir.

Mr. WARREN. You were appointed by the court?

Mr. FAGAN. By the United States district court.

Mr. WARREN. Were you interested in the railways previously?

Mr. FAGAN. No, I was not; except about 20 years ago I was counsel for one of the underlying companies of this company.

Mr. WARREN. But of late years you have not been interested in them?

Mr. FAGAN. Of late years I have not been interested in them in any way whatever.

Mr. WARREN. No more than Mr. George is?

Mr. FAGAN. Not at all.

Mr. WARREN. When were you appointed?

Mr. FAGAN. On the 23d of April, 1919.

Mr. WARREN. So that you have been receiver about four months—

Mr. FAGAN. I was appointed one of the original receivers. At that time my associates and I disagreed about the policy of the company and two of them resigned and thereafter Mr. George and Mr. Tome were appointed. Mr. Tome, by the way, was president of this company at the time of the receivership.

Mr. WARREN. When you were appointed did you believe that the company had been well managed or poorly managed, or did you have no opinion about it?

Mr. FAGAN. Well, do I have to answer that question?

Mr. WARREN. I will not press the question if you do not care to answer it.

The CHAIRMAN. Read the question.

(The question was then read as above recorded.)

Mr. FAGAN. I might answer that by saying that the general opinion was that it was not properly managed—I mean of the community.

Mr. WARREN. The general feeling in the community?

Mr. FAGAN. Yes.

Mr. WARREN. Since you have been a receiver you have had an opportunity to acquaint yourself with the methods of management, I presume?

Mr. FAGAN. Yes.

Mr. WARREN. And what do you think of the practical management? I am not speaking of the financial operations, but the operation of the railway.

Mr. FAGAN. I think it was fairly good.

Mr. WARREN. And what are the conditions prevailing in Pittsburgh with respect to the expenses and income of the company?

Mr. FAGAN. The income of the company is about \$15,000,000 a year. Of that, about 65 per cent is paid in wages.

Mr. WARREN. Sixty-five per cent of the income?

Mr. FAGAN. From 65 to 70 per cent of the income is paid in wages.

Mr. WARREN. I did not overstate it, when I said 50 per cent in some cases; did I?

Mr. FAGAN. No. There are large municipal charges and franchise charges against the company consisting of obligations to pave the streets in the principal municipality through which the lines run, to wit, the city of Pittsburgh, which amount to 40 per cent of the paving of the streets over which the lines run.

This company passes over about 150 bridges. Some of them in the outlying municipalities like the boroughs and townships are toll bridges. In the city of Pittsburgh where the greater part of the business necessarily is done all of the bridges are free to all sorts of passengers and vehicles except this railway company, and under an old ordinance the railway company has always been charged for tolls over those bridges and is still charged for them. There are also pole taxes for the poles which are erected along the lines upon which all of these municipalities collect tax.

The bonds outstanding against the company amount to about \$50,000,000. There are leases upon which rentals are provided amounting to about eight or nine million dollars.

When we took charge of this company, of course it was insolvent. The road had been allowed to run down for 6 or 7 years. We found the physical condition of the company such that it was unsafe to life or limb in some cases to travel over it. We were appointed during the activities of the war, on the 23d of January, 1918. We are in a district where a great many munition factories exist. In the preceding winter the road had absolutely fallen down on account of the severe weather, the immense snowstorms, and so forth, so that in some instances you would have to wait for 2 hours at a time to get a car. On account of very great complaints that were made about the inability of the company to convey back and forth the munition workers, the Federal Government took cognizance of the situation, and they sent a representative of the Navy Department and also one of the War Department to insist upon the rehabilitation of the road and the placing of the tracks in proper condition to convey these munition workers. A board, I presume, of a Federal nature, or quasi-Federal nature, called the war productions committee, which consisted of members of the chamber of commerce acting in conjunction with the representatives of the War and Navy Departments, insisted upon whatever money came into the hands of the receivers being used for the purpose of keeping up the service. That was done to such an extent that the service became practicable, and we were able to convey these munition workers back and forth to their homes. That entailed the expenditure of nearly all of the available money that came into the hands of the receivers.

In the meantime a controversy arose upon my part on the one side and the other receivers on the other side concerning the policy of paying interest on the capital charges of the company. I maintained that all of the money ought to be put into the service of the road until it was put in proper condition. Upon that subject we disagreed and the other receivers resigned; thereupon Mr. George and Mr. Tome were appointed in their place.

Since that time——

The CHAIRMAN. Has your policy been followed since the appointment of the new receivers?

Mr. FAGAN. I was just coming to that. Since that time the receivers have agreed upon the policy of maintaining the service in a proper way to accommodate the public. In order to do that, we have been obliged to forego the payment of the capital charges. In addition to that, we have not paid any of these municipal obligations. And while we have improved the service and it is admitted generally that we have done so, it has been done at that expense, so that now the only charges that are paid are the wages of the employees and the payment of material men and for materials.

Just shortly before the receivers took charge of the company an increase in the wages of the employees had been effected. Immediately after the receivers were appointed it became necessary to raise fares in order to have sufficient money to operate the road.

Commissioner SWEET. You are speaking of the first appointment now in January, 1918?

Mr. FAGAN. About January, 1918. We did increase the fares which at that time were, in round numbers, about 5½ cents a fare. In lieu of that we established a zone system consisting of two zones, in the first of which, extending about 2 miles from the center of the city in all directions, we made the fare 5 cents, and in the zones beyond that within the city limits, 7 cents. The result of that increase in fares was that the riders fell off about 14 per cent, but notwithstanding that fact the revenue increased, I think, about \$600,000 for the year, gauging it by month to month.

Mr. WARREN. About when was that change made effective, Mr. Fagan?

Mr. FAGAN. I would say in January, 1918. We have proceeded with those fares at that basis up until this time.

In the meantime, shortly after we went into office we increased the wages of the workmen. When this governmental activity began the men insisted upon another increase, which we opposed on the ground that the receipts of the company did not justify it. The representatives of the War and of the Navy Departments and of this war productions committee of the chamber of commerce insisted upon the increase being granted; and thereupon we granted it. In the meantime, we were using a great deal of money to rehabilitate the road; in fact all the spare money we had. Things went along in that way until the expiration of the then existing contract, which expired on the 30th of April of this year. And under the terms of the contract the employees notified us that they would require an increase of the existing rate at that time, the maximum of which was 48 cents an hour to 60 cents an hour. We opposed that increase and, we thought, demonstrated that the revenue was not sufficient to justify it. However, the matter was carried on and we had conferences covering a period of nearly a month with the result that the employees, becoming dissatisfied, ordered a strike; and the strike went into effect last month and lasted about 4 days. And in order to bring the strike to a termination, we agreed with the workmen that we would join with them in the submission of the controversy to the National War Labor Board for arbitration; which we did. That matter is now pending before the National War Labor Board. No decision has been rendered on it.

Now that is about the situation.

The CHAIRMAN. Is there anything in that agreement which would prevent the men from striking if they are not satisfied with the action of the War Labor Board?

Mr. FAGAN. No. There is a provision in the agreement, first, that—we were responsible for this covenant in the agreement—that the decision of the National War Labor Board was to be subject to the approval of the United States district court, that we agreed that we would recommend for the approval of the United States courts the decision of the National War Labor Board. And on the other hand, the men exacted a covenant that in the event that they would not agree to the final award that they would have 20 days in which to resume their strike.

Mr. WARREN. That was the agreement submitting it to the National War Labor Board?

Mr. FAGAN. To the National War Labor Board.

Mr. WARREN. Did you have an agreement with them otherwise? Are they members of the Amalgamated Association?

Mr. FAGAN. They are—well, I do not know; the Federation of Labor I think they call it.

Mr. WARREN. I guess if they are street-railway men it is more likely to be the Amalgamated Association.

Mr. FAGAN. Well, whatever it is, they belong to the national or international association, I have forgotten the technical name of it.

Mr. WARREN. The Amalgamated Association of Street Railway Employees of America.

Mr. FAGAN. Yes. I do not know the name of it. I can not recall. Amalgamated. I know they belong to the street-car employees' association to which all of these other concerns belong.

Commissioner GADSDEN. They belong to the Amalgamated Association.

Mr. FAGAN. Well, I do not know.

Mr. WARREN. I ask only to identify it. Was there a written agreement with them as regarded their wages?

Mr. FAGAN. Yes.

Mr. WARREN. Between the company and the men?

Mr. FAGAN. Yes.

Mr. WARREN. That was the agreement which expired on the—

Mr. FAGAN. The 30th of last April.

Mr. WARREN. On the 30th of last April?

Mr. FAGAN. In other words, on the 1st of May.

Mr. WARREN. Do you happen to know whether that contained a provision for arbitration of grievances?

Mr. FAGAN. I think it did; yes, I am sure it did.

Mr. WARREN. The Amalgamated usually has an arbitration agreement in it.

Mr. FAGAN. Yes.

Mr. WARREN. But anyhow the strike took place?

Mr. FAGAN. Yes. We agreed to submit it to the United States court and they declined to do it.

Mr. WARREN. They declined to submit it to the court?

Mr. FAGAN. Yes.

Mr. WARREN. As I have followed your statement, you increased the wages twice before the strike?

Mr. FAGAN. The wages were increased just before we went into office.

Mr. WARREN. That was by the old company?

Mr. FAGAN. Yes. I would say that would be in December, 1917. Immediately upon our going into office we increased the wages. Then when this Government activity began we increased the wages again, and then if this award should be made we will have increased the wages four times.

Mr. WARREN. And the last time raised it to 48 cents, which was the maximum of the War Labor Board.

Mr. FAGAN. Yes. These wages, as I understand it, about five years ago were 30 cents an hour, the maximum wages. If these gentlemen in their application should be successful they will get 60 cents, which would be just double what they got five years ago.

Commissioner GADSDEN. What does that mean in dollars and cents?

Mr. FAGAN. From 30 cents an hour to 60 cents an hour.

Commissioner GADSDEN. I mean do you happen to carry in your head the figures it means to the company approximately?

Mr. FAGAN. We have 3,500 employees who are members of this association. We have 3,500 other employees who are not members of the association. And the rule heretofore has been that when the union employees were raised the nonunion men should be raised a commensurate amount. It costs \$80,000 a cent to raise these wages. In other words—well, in round figures I figured out in my mind one day it would cost us \$2,100,000 to make this increase per annum.

Mr. WARREN. That of course would mean a further increase of passenger rates.

Mr. FAGAN. Now, I forgot about that. Just about the time that this labor dispute was on and before that time we recognized that if we wanted to carry on this company we would have to have another increase in rates.

We have a public service commission in Pennsylvania which requires that a notice of 30 days shall be given of any intended increase. As I said, we had our minds made up about the time this came along to ask for an increase, and while this question was pending we made an application for the increase because we finally figured out that it would not be fair to these men to postpone the time of asking for the increase until this case was decided, that the War Labor Board ought to have all the information on the subject, and we therefore did it before the argument before the War Labor Board in Washington here. That, of course, provides for a flat rate of $7\frac{1}{2}$ cents without regard to zones. We obliterated the zone. And by the sale of tickets it is $7\frac{1}{2}$ cents, which would mean tickets of four for 30 cents or multiples of that and 10 cents if a cash fare was paid. Now, we figured that, under ordinary circumstances, we could get along with that and operate the road and possibly pay something on these capital charges.

Commissioner SWEET. Did you include in that an increase in wages or leave them as they were?

Mr. FAGAN. Well, I apprehend that, considering the falling off in passengers, which appears to be the inevitable result of these increases in fares, if these wages were increased a substantial amount we would be then or now just about where we are and there would be nothing left to pay on account of the capital charges nor on account of these municipal obligations.

Mr. WARREN. In other words should you say that you were not earning, or just earning, your operating expenses at the present time?

Mr. FAGAN. That is all we are doing, after paying the wages and material men and for materials.

Mr. WARREN. Nothing left after paying operating expenses?

Mr. FAGAN. Nothing left at all.

Mr. WARREN. Nothing left to pay these municipal charges?

Mr. FAGAN. Not a cent.

Mr. WARREN. Is there enough left to pay your regular taxes?

Mr. FAGAN. Well, we have paid our State taxes, our corporate taxes.

Mr. WARREN. You stated, I think, that you raised the fares in January, 1918, and you stated how much the traffic fell off, but I did not catch it.

Mr. FAGAN. Fourteen per cent I said.

Mr. WARREN. But you gained nevertheless about how much?

Mr. FAGAN. About \$600,000.

Mr. WARREN. Did you follow during 1918 the street-railway statistics of any other road enough to notice whether the traffic of all roads fell off in 1918?

Mr. FAGAN. That was my recollection; yes.

Mr. WARREN. That was the year, if I am not mistaken, when the weather was so very severe in January and February.

Mr. FAGAN. Yes. I think all railways fared about the same.

Mr. WARREN. So that part of your loss of revenue or of traffic might be due to that?

Mr. FAGAN. Yes.

Mr. WARREN. There were also the coldest days, so-called, in January and extending into February.

Mr. FAGAN. Yes; and in season, as I say, this road absolutely fell down.

Mr. WARREN. And then Pittsburgh, I suppose, suffered from the influenza epidemic as all the rest of the country did?

Mr. FAGAN. Yes; we suffered from that, and during that time our income was depleted about one-half.

Mr. WARREN. Are all those losses included in this loss of 14 per cent of traffic?

Mr. FAGAN. Yes. I might say, I just overlooked an item. When we were appointed, under the decree of the court appointing us, we were required to pay the preceivership debts, amounting to \$900,000, which had accrued within four months of the time of our appointment. We have been able up to now to pay only 20 per cent of those. We have paid two installments of 10 per cent each since we have become receivers.

Commissioner SWEET. What is the nature of those debts?

Mr. FAGAN. For materials wholly—materials furnished to the company for the upkeep of the road for the four months preceding the appointment of the receivers.

Commissioner SWEET. Was that after the application of the appointment of the receivers and before they were actually appointed?

Mr. FAGAN. Yes. When they were appointed the court in its decree appointing them provided that they should pay the obligations owing by the company for materials furnished within four months of the time of the appointment of the receivers.

Mr. WARREN. I suppose the court anticipated that you might be able to pay those in addition to paying your current expenses?

Mr. FAGAN. Yes; I think so.

Mr. WARREN. But it did not prove so.

Mr. FAGAN. No, only to the extent I say—that we paid two installments of 10 per cent each.

Mr. WARREN. In the entire period covered by the receivership?

Mr. FAGAN. Yes; and one of those just within a week.

Mr. WARREN. In your judgment, Mr. Fagan, is a substantial increase of rates necessary to rehabilitate that company?

Mr. FAGAN. Absolutely, if it will bring the revenue. The revenue is the last guess about the thing. I do not know to what extent this will bring an increase. During the period of this strike about which I have spoken it was demonstrated in our community that this company of ours was not a monopoly. That strike lasted for four days

and nobody complained about being discommoded. We have 15 steam-railroad lines running out of our city through the suburbs and in the city, with stations in the city; and among them, plus a disposition upon the part of everybody who had an automobile to pick up people and help them along and carry them back and forth, there was decidedly little inconvenience, so that I think on that question it narrows itself down to the riding habit.

Mr. WARREN. And yet you anticipate a considerable increase in revenue?

Mr. FAGAN. Of course we do. We hope to have an increase, but judging the future by the past we can not count on the revenue being commensurate with the increase.

Mr. WARREN. The percentage of increase?

Mr. FAGAN. Yes.

Mr. WARREN. I think, though, that you may be not quite hopeful enough if you base that judgment on the 1918 figures, because I think you will find you would have had a considerable loss of traffic if you had left your fares the same in 1918.

Mr. FAGAN. Yes; I think so, too.

Mr. WARREN. I judge from the method you are adopting of increasing the fare this time—a flat increase to $7\frac{1}{2}$ cents for tickets and 10 cents for cash—that you have reached the conclusion that in Pittsburgh a flat increase is more desirable than dividing the city into two or more zones.

Mr. FAGAN. We thought so; because when the city was divided into zones, we got no credit from the people who lived in the cheaper zone, and it gave an argument to the people who lived in the higher zone against the inequity of the proposition.

Mr. WARREN. Well, those charges, as I understood Mr. George and as I have otherwise gained the impression from literature upon the subject—the 7-cent fare in the outer zone, if I may call it that, was charged to everybody whether he rode only in that zone or whether he rode in both zones.

Mr. FAGAN. Yes.

Mr. WARREN. Did you consider at all the possibility of making two 5-cent zones for the local rides within either zone?

Mr. FAGAN. No; we did not. Well, we did consider that, but we did not think it was feasible. We also considered having in the 7-cent zone a lower rate for collateral streets, cross streets, where you would ride only three or four squares; but we were argued out of that by experts and managers of the road and those who had had experience.

Mr. WARREN. That is all that I wish to ask, Mr. Chairman.

The CHAIRMAN. When will that $7\frac{1}{2}$ -cent fare go into effect?

Mr. FAGAN. The 1st of August.

The CHAIRMAN. And that applies in this 5-cent zone as well as in the 7-cent zone?

Mr. FAGAN. Yes.

The CHAIRMAN. Was that ordered by the public-service commission?

Mr. FAGAN. Under the act establishing the public-service commission; upon filing application we are authorized, or any railway company is authorized, to establish the fare, the hearing upon which may take place 30 days afterwards. Of course, this is all subject

to the decision of the public-service commission. And I might say in passing that the public-service commission has not yet approved of these prior increases we made.

The CHAIRMAN. Do you think that the 7½-cent fare in your congested zone will result in a material reduction in the number of passengers?

Mr. FAGAN. I apprehend that it will.

The CHAIRMAN. Do you expect it will result in an increase in the gross earnings?

Mr. FAGAN. Well, we calculate it will.

The CHAIRMAN. Do you hope that the increase will be sufficient to take care of your operating expenses on fixed charges?

Mr. FAGAN. I do not.

The CHAIRMAN. What will be the result if it does not?

Mr. FAGAN. Well, one result already that has obtained is that one of these underlying companies has asked the court for leave to foreclose its mortgage and the court has granted the leave, and we are getting ready to make the foreclosure.

The CHAIRMAN. Assuming that property is sold, what is the ultimate result?

Mr. FAGAN. Now this particular property could be operated as an independent unit. It is not absolutely dependent upon cooperation with the general system.

The CHAIRMAN. What is its mileage?

Mr. FAGAN. Our whole mileage is 620 miles, and this is about 20 per cent of that, about 120 or 130 miles.

The CHAIRMAN. Does it occupy the streets in the important part of the city?

Mr. FAGAN. Well, in an important part for a railroad system, but not in the valuable part.

The CHAIRMAN. Then if it operates as an independent system, you will have the sum of two local fares if a person is traveling from one line to another.

Mr. FAGAN. I can not see any way out of it.

The CHAIRMAN. Has the commission the power to order physical connection and a through rate between those lines?

Mr. FAGAN. I do not think so.

The CHAIRMAN. Very well, that is one thing. Now suppose that that company is not sold on the foreclosure of the mortgage, then what is going to be the result?

Mr. FAGAN. Then that company would take the same place as other underlying companies and have to depend for any return upon the prosperity of the whole system.

The CHAIRMAN. Looking at the system as a whole, what does the future hold in store for it if the 7½-cent fare does not bring sufficient revenue?

Mr. FAGAN. I can not see anything except severance of the underlying companies from the system.

The CHAIRMAN. How many underlying companies are there?

Mr. FAGAN. Well, at the base there are about 208.

The CHAIRMAN. I am sure you do not mean that there would be 208 independent companies operating in the city.

Mr. FAGAN. Well, there are not 208 companies except in this respect: This entire system is built upon about 208 underlying com-

panies. Those 208 underlying companies have been merged and consolidated and remerged and re consolidated until they now consist of practically three underlying systems.

The CHAIRMAN. Then you might have three independent systems operating in the city?

Mr. FAGAN. Yes.

The CHAIRMAN. Very well. Would that seriously affect the public?

Mr. FAGAN. Well, it would seriously affect them inasmuch as they would probably have to pay two fares where they have now to pay only one; or in some cases would have to pay three where they pay now only one.

The CHAIRMAN. Suppose these companies operated independently, do you think they could subsist on a 5 cent fare?

Mr. FAGAN. I apprehend that two of them could.

Mr. WARREN. On a 5-cent fare?

Mr. FAGAN. On a 5-cent fare; yes.

The CHAIRMAN. What makes you think so?

Mr. FAGAN. Well, they happen to be companies that, as I say, might be operated independently. They run through districts not very long and where a great many passengers could be served, and I think perhaps they could operate at a profit.

Commissioner GADSDEN. On 5 cents?

Mr. FAGAN. Yes.

Mr. WARREN. Even with these present rates of wages?

Mr. FAGAN. Well, now, I have not taken into consideration the increased cost of labor and materials and material men. Why, looking at it from that viewpoint, I think it is very doubtful whether they could or not.

The CHAIRMAN. You have got to have more money if you are going to maintain that as a single system.

Mr. FAGAN. Yes.

The CHAIRMAN. If the 7-cent fare does not produce sufficient revenue do you think that 8 cents will?

Mr. FAGAN. Seven and a half cents is the proposed increase—7½ cents for tickets and 10 cents for individual cash fares.

The CHAIRMAN. Yes.

Mr. FAGAN. Why, we hope it will; and that is as strong as I can put the feature of that situation. It is an experiment largely.

The CHAIRMAN. How does the public look upon this increased fare?

Mr. FAGAN. The public in a general way, so far as individuals are concerned and so far as trades bodies—civic bodies, of which we have a great number, have not indicated very much about what their feeling is. Some of the minor municipalities, the boroughs, have shown a disinclination to the increase. The principal municipality—the city of Pittsburgh, consisting of the council and the mayor, who look after such things as this, privately sympathize and commiserate with us and say it has to be done, but publicly they oppose it and have filed an objection before the public-service commission against the increase.

The CHAIRMAN. Have you paid any of the capital charges since you became receiver?

Mr. FAGAN. Yes, sir; that is, the receivers—or while I was receiver under the first receivership; none since the other receivers were appointed in last January; none has been paid at all.

The CHAIRMAN. The condition that confronts you is due entirely to the increased cost of labor, supplies and materials, and fuel; is it not?

Mr. FAGAN. I would say yes to that question.

The CHAIRMAN. Because up to the rising tide of prices you were operating successfully; were you not?

Mr. FAGAN. Well, if you mean that from a financial standpoint, by paying the interest on the capital charges—yes. If you mean satisfactorily so far as the service of the system was concerned, I would say no. In other words I think this system is about at least six years behind in the rehabilitation and upkeep of the physical system.

The CHAIRMAN. How many years ago did this let down in the maintenance and condition of the property become apparent?

Mr. FAGAN. About six years ago.

The CHAIRMAN. What was the cause of it six years ago?

Mr. FAGAN. Well, my opinion is that the company in the beginning or at these different times was overcapitalized; that the capital stock was too high; that the bonds were not sold at par; that favorite contractors were given the contracts for the building and the rehabilitation of the road; and that all of those things tended to the situation which finally developed.

The CHAIRMAN. To what extent was the system overcapitalized?

Mr. FAGAN. Well, now, as I tell you, the bonds of this company amount to about \$50,000,000. I do not know this of my own knowledge, but the conditions are that those bonds were not sold at par—they were negotiated through favorite banks at a sum below par, a great many of them.

The CHAIRMAN. How much below par? What did it cost to sell them?

Mr. FAGAN. Well, in some cases I have understood they were sold at about 20 per cent below par.

Mr. WARREN. What rate were they bearing?

The CHAIRMAN. What about the stock?

Mr. FAGAN. Well, most of the stock, I mean of the common stock—there are two classes of stock in this company, the preferred and common stock—my information is that the common stock was very largely taken by promoters for the payment of their compensation, for the compensation of engineers, and for the compensation of lawyers and, in some instances, I think as a bonus for the sale of the bonds.

The CHAIRMAN. Do you know whether the common stock represents any money that was actually put into the plant?

Mr. FAGAN. I think it does not. Now, I do not know that.

The CHAIRMAN. How much common is there?

Mr. FAGAN. About \$50,000,000, I think.

Mr. WARREN. In addition to the preferred?

Mr. FAGAN. Yes.

Mr. WARREN. How much is that?

Mr. FAGAN. It is equally divided.

The CHAIRMAN. Equally divided?

Mr. FAGAN. Yes.

The CHAIRMAN. Fifty-fifty—fifty million more preferred?

Mr. FAGAN. Yes.

The CHAIRMAN. Did the preferred represent any money actually invested in the plant?

Mr. FAGAN. Well, really, I can not say that.

The CHAIRMAN. Has this property been valued by any public body?

Mr. FAGAN. It is in the process of being valued and has been under a body called the valuation conference, which is a subordinate body to the public-service commission, from which we expect a report almost any day now. That has been in process of investigation I think for about a year and a half and at the enormous cost of five or six hundred thousand dollars. Now, I understand—by the way, this may be interesting to you—that the basis upon which this valuation is being made is first upon the original cost of the company and secondly—

The CHAIRMAN. Have you figures to show the original cost?

Mr. FAGAN. I think so. They have access to all our books and they just go down there and take charge of them as if they owned them.

The CHAIRMAN. What do they find the original cost to be?

Mr. FAGAN. They have not reported. We are waiting for the report. It is to be based upon the original cost and then upon what they call the historical value, which is based—

The CHAIRMAN. I think I am quite familiar with the theory.

Mr. FAGAN. Yes, and then the ultimate object is to ascertain what is the fair value.

The CHAIRMAN. The present fair value?

Mr. FAGAN. The fair present value.

The CHAIRMAN. You need not explain the theory. That is quite well understood.

Mr. FAGAN. Yes. Upon that they give their idea of what the fares ought to be, based upon this fact.

The CHAIRMAN. Do you believe, if a fair value of that property is established and the whole operated as one system economically and still giving good public service, that a 6-cent fare will be fair and reasonable to the investors as well as to the public?

Mr. FAGAN. I think not.

The CHAIRMAN. You think you have to have more than 6 cents under those conditions?

Mr. FAGAN. Absolutely. I do not think there is any question about it. My own judgment is that under the present living conditions and wage conditions and costs of material that this road can not be operated and pay a decent return to the people who own it—I mean the bondholders—under a fare less than 10 cents.

The CHAIRMAN. You stated that there is more or less suspicion of municipal corruption and collusion in fixing the contracts and things of that kind. Has anything of that kind been going on while the road has been in the hands of the receivers, to your knowledge?

Mr. FAGAN. Absolutely not. I know that.

The CHAIRMAN. Contracts are let on open bids?

Mr. FAGAN. Openly. No contract could be let under this receivership unless it is open.

The CHAIRMAN. Had the city or the State commission attempted to exercise any jurisdiction over the operation or the construction or the letting of contracts or the expenditure of money prior to the time you became receiver?

Mr. FAGAN. No. The only activity that the city has shown in relation to this railway company has been to always criticize it, and since the public-service commission was established—this public-service commission is a recent creation; it has only been in existence about five years—is to file petitions against anything that the railway company wanted. Now, they among others were anxious to have this receivership created and we thought that when the receivership was created that that would probably end the antagonism of the city, but instead of that they just carried it on the same as they always have. This railway company heretofore has not been a very popular function in the city of Pittsburgh and politicians have always taken advantage of the virtue of having a propaganda against the railway company. Now, as I say, we thought that would end with the appointment of receivers, and it did end to a very large extent; but when any concrete proposition is made like the increase of fares, the city immediately comes in and files objections to it.

The CHAIRMAN. Were the politicians holding the company up?

Mr. FAGAN. Do you mean for sordid purposes?

The CHAIRMAN. Yes. I have heard it intimated that sometimes they do—not in Pittsburgh.

Mr. FAGAN. In what period of time do you mean?

The CHAIRMAN. Prior to the receivership, sir. I do not make any such imputation since you have taken charge.

Mr. FAGAN. I wanted to fix the time. The politicians and the promoters of street railways when these affairs were going on were usually acting in concert, at least they were in our bailiwick; I do not know how they were in other places, although I have heard of some other places where that situation did exist.

The CHAIRMAN. If these properties go back to private operation and control again, how are you going to prevent a recurrence of that old condition?

Mr. FAGAN. Well, of course—do you mean these receivers or the public?

The CHAIRMAN. The public.

Mr. FAGAN. I do not know except by the different standards of honesty that prevails now and the difference in the publicity that is given to all these public questions. And in our State by the existence of this public-service commission, which, by the way, is a very efficient and capable body which did not exist at the time when these corporations were put together—at the time when they were put together and when these securities were exploited the only test was whether you could sell them. You had to get no consent from anybody like the public-service commission.

The CHAIRMAN. Have you attempted to sell any bonds since you were appointed receiver?

Mr. FAGAN. No, we have not any to sell; but I know something about the market.

The CHAIRMAN. Have you had to raise any new capital?

Mr. FAGAN. No; we have not raised any capital. We have issued no certificates.

The CHAIRMAN. You have heard something about this cost-of-service plan, have you not?

Mr. FAGAN. I just read it in the paper the other day at home when Mr. George, one of my coreceivers, testified here, and I left town the day he got back to town. I did not have time to go into the subject with him.

The CHAIRMAN. You are not sufficiently familiar with that subject to discuss whether or not that would afford a suitable remedy for the Pittsburgh situation?

Mr. FAGAN. I do not know enough about it to say that, except this, that if the cost-of-service plan means that a railway company should be run at cost, I think it is a very dangerous thing, because then the door would be open to the labor to ask the highest cost possible that could be obtained, and so as to materials and as to material men. It might be all right if it was properly safeguarded under suitable limitations, but if it is as the term implies I do not think it would be a good thing.

Mr. WARREN. It would be a supervised cost.

Commissioner GADSDEN. I understand that the bonded indebtedness in that company is about \$50,000,000?

Mr. FAGAN. Yes.

Commissioner GADSDEN. And your recollection is that the bonds sold at about 80?

Mr. FAGAN. Well, I say that I have heard that some of them sold as low as 80. That would be an issue or part of an issue to a bank who would take them up and then they would probably sell them at par and the profit would go to the bank and not to the company.

Commissioner GADSDEN. That would represent about \$40,000,000 of real money in this property, would it not?

Mr. FAGAN. If they all sold at that price. I never heard that they all did.

Commissioner GADSDEN. So that even if the common and preferred stock represented nothing it would look as if there was real money in that property to the extent of about \$40,000,000 or in that neighborhood?

Mr. FAGAN. Yes, I would say that; although in the face of this investigation being made by the public-service commission and which report will probably be made public in a few days, it looks a little mal apropos for me to give an opinion.

Commissioner GADSDEN. What I was getting at is, if that is so or approximately so, how is that \$40,000,000 or any part of it to be taken care of under existing conditions?

Mr. FAGAN. As I tell you, this road has approximately 600 miles of line—that is, 300 miles of double track. Under the present conditions, costs, it would take \$70,000 a mile to build that road. That would be \$42,000,000. Now that is without regard to the rolling stock; and we have as many cars on our road, I heard it testified recently by the vice president of the Baltimore & Ohio Railroad, as the Baltimore & Ohio Railroad has passenger cars. Now that is plus power houses, barns, and all that sort of thing, so that there is actually, according to present prices, \$42,000,000 invested in the tracks, and I would say in a rough guess, twelve or fifteen million dollars in these other things I have mentioned.

Commissioner GADSDEN. Now, Mr. Fagan, even allowing 6 per cent, which of course is too low a rate of interest for these days, and allowing 4 per cent depreciation that property ought to earn—that would be 10 per cent on \$40,000,000 or \$4,000,000 net earning. Do you see any possible way it can earn anything like that?

Mr. FAGAN. I can not.

Commissioner GADSDEN. Under any system of charges, I mean?

Mr. FAGAN. Oh, yes. You could get up a system of charges that would earn it, provided the passengers would continue to ride.

Commissioner GADSDEN. Yes; that is what I mean.

Mr. FAGAN. Yes.

The CHAIRMAN. What have you to say as to the proposition that the city has got to appropriate sufficient money out of its taxes to take care of the deficit and provide proper service?

Mr. FAGAN. I think I told you we have all these bridges which are free to everybody except the railway company and upon which we pay tolls. We pay tolls for cleaning the streets which do not need any cleaning at our hands. Those obligations were imposed in the days of horse cars to clear up the drippings from the horses. We pay 40 per cent of the paving expenses of the streets over which we run, and I thought as one of the means by which this difficulty could be obviated, it was to have the city forego these charges, and we intend to take that question up with the city in the near future.

Commissioner GADSDEN. My recollection is that Mr. George testified that that was about \$200,000; did he not?

Mr. FAGAN. I think in the aggregate it amounts to \$385,000.

Commissioner GADSDEN. That goes far toward paying—

Mr. FAGAN. We pay \$75,000 a year for this alleged cleaning. Well, we do not have anything that causes cleaning. Electric cars do not make the same drippings that horses do, and we are the only people, as I say, who pay any tolls on bridges. Automobiles and everything else are free.

The CHAIRMAN. Of course, we people who use automobiles are in a special class. [Laughter.]

Mr. FAGAN. Yes. Well, we poor fellows have to ride in cars once in awhile.

Mr. WARREN. Do you reside in Pittsburgh yourself?

Mr. FAGAN. Yes, sir.

Mr. WARREN. And is it your opinion that the unified system which now exists there should, if possible, be preserved?

Mr. FAGAN. Absolutely.

Mr. WARREN. It serves the city much better than if it were split up, even in three?

Mr. FAGAN. Yes, sir; there is no doubt about that, and, further than that, the people are satisfied with it, the way it is running now.

Mr. WARREN. Is there any reason, under the law of Pennsylvania, why there should have been so many companies originally entering into this combination?

Mr. FAGAN. No. This was just the natural growth that occurred there, the same as it did in every other place, through those days of mergers and combination and exploitation and reexploitation.

Mr. WARREN. I had an impression that it was easier to get a charter in Pennsylvania in one borough than it was to go through three or four. That is not so?

Mr. FAGAN. No.

Commissioner SWEET. These companies have not all been operating companies, have they?

Mr. FAGAN. Originally.

Mr. WARREN. The 200?

Mr. FAGAN. Originally they were.

Commissioner SWEET. I understood Mr. George to say that some of them were only paper companies and never had actually operated.

Mr. FAGAN. Well, there may have been some of that class. I would not say that is not correct. It appears to be preposterous that there should be 208 companies in a combination that comprises only 625 miles of track, but some of those companies run over a very small territory—some of them only half a mile.

Mr. WARREN. It would be an average of 3 miles to a company.

Mr. FAGAN. Yes, sir. I think they were all real bona fide companies in the beginning.

Mr. WARREN. Have you had any occasion to, or have you made any attempt to, issue receivers' certificates?

Mr. FAGAN. No, we have not.

Mr. WARREN. You spoke of capital charges which were paid during the last six years before the receivership.

Mr. FAGAN. Yes.

Mr. WARREN. What did you include in that—the interest on those bonds?

Mr. FAGAN. The interest on the bonds and the rentals to the under-lying companies.

Mr. WARREN. What is the occasion of this valuation? Why is it being made at this time?

Mr. FAGAN. The purpose of it is to ascertain the present value of the property, and upon that to base what should be a proper return, for the purpose of furnishing funds to operate the company and pay the capital charges.

Mr. WARREN. Looking to a reorganization, perhaps.

Mr. FAGAN. Well, eventually, I presume. In fact, this valuation board began its functions before the receivers were appointed.

Mr. WARREN. Yes.

Mr. FAGAN. This trouble as to the financial condition of this company has been prevalent for four or five years. It was not a new thing when the receivers were appointed.

Mr. WARREN. So the public-service commission took steps to have this valuation made?

Mr. FAGAN. Yes.

Mr. WARREN. That is all.

Mr. FAGAN. I was told when I came here that if I had any suggestions to make about this matter, I ought to make them.

The CHAIRMAN. We would be glad to have them.

Mr. FAGAN. This one thing has occurred to me, and this arises from the fact that I was here recently appearing before the National War Labor Board. That board, of course, as everybody knows, is a Federal institution, and during the existence of the war was given authority to fix the wages of the men. I presume that that function will cease as soon as the war is over; in fact, I understand that our case is about the last one of which they can take cognizance.

Now, take our case, for instance. The Public Service Commission of Pennsylvania is vested with the power to fix the rate of wages——

Mr. WARREN. The rate of wages?

Mr. FAGAN. I mean the rate of fare.

Mr. WARREN. The rate of fare.

Mr. FAGAN. And it occurred to me that these two companies, being so closely correlated, ought to be under the jurisdiction of one body.

The CHAIRMAN. Wages, as well as rates?

Mr. FAGAN. Wages as well as rates. Rates consist of all the income of the company and that is now under the jurisdiction of the public-service commission. Wages consist, in our case, of at least two-thirds of the disbursements, and I think, therefore, that both of those things, which are the largest and most important items that enter into this operation, should be under the jurisdiction of one body, whether it be the War Board or somebody tantamount to that, or the public-service commission; but I think it would have to be the public-service commission, from the fact that a Federal institution would not have any jurisdiction, except over interstate affairs.

Commissioner GADSDEN. Do you think you could get the laboring men to agree with you on that?

Mr. FAGAN. I don't know. The thought just occurred to me, and I thought I would give it to you.

Commissioner SWEET. The War Labor Board will go out of existence as soon as peace is declared, as you have said.

Mr. FAGAN. Yes.

Commissioner SWEET. So that would not be a permanent body.

Mr. FAGAN. Well, when I was here appearing before the War Labor Board, it was suggested that, after they did actually go out of existence, they would probably be replaced by a commission to be established by the Labor Department. I did not pay any attention to it at that time, but in evolving this thought, it just occurred to me that any Federal body could not have any jurisdiction, except in interstate matters, and, therefore, the natural body to which the power should be given, if it should be given, would be a State body.

Commissioner SWEET. With the idea——

Mr. FAGAN. That they would have practically the whole situation before them.

Commissioner SWEET. Certainly, and if they would permit an increase of wages, a corresponding increase in revenue could be made.

Mr. FAGAN. Yes; and then one of the defenses which we gave to the National War Labor Board was that we were an insolvent concern. We gave them all our figures—everything we had—and that under no circumstances would we be able to meet the increase in these wages; and we were politely informed that that was not their business—that their business was to fix the wages, and our business was to find the money. [Laughter.]

Mr. WARREN. That has been one of your chief duties since you became receiver; has it not, Mr. Fagan?

Mr. FAGAN. Yes.

Mr. WARREN. Thank you very much.

Mr. FAGAN. Not at all.

Mr. WARREN. I will ask Mr. Head to take the stand.

STATEMENT OF MR. W. B. HEAD.

Mr. WARREN. Give your full name, Mr. Head.

Mr. HEAD. W. B. Head.

Mr. WARREN. Where do you reside?

Mr. HEAD. In Dallas, Tex.

Mr. WARREN. In Dallas, Tex.?

Mr. HEAD. Yes, sir.

Mr. WARREN. Are you connected with the street railway there?

Mr. HEAD. Vice president of the Dallas Railway Co.

Mr. WARREN. How long have you been vice president of that company, Mr. Head?

Mr. HEAD. Since it was organized. The Dallas Railway is a new company, however.

Mr. WARREN. When was it organized?

Mr. HEAD. It was organized in 1917.

Mr. WARREN. That company practically succeeded a prior street-railway company; did it not?

Mr. HEAD. Yes, sir.

Mr. WARREN. Of the same name?

Mr. HEAD. No, sir.

Mr. WARREN. What was the name of the old company?

Mr. HEAD. There were several companies operating in the city of Dallas, but under one management, owned by a holding company.

Mr. WARREN. And this new company was organized to take them all over?

Mr. HEAD. Yes, sir.

Mr. WARREN. And merge them into one?

Mr. HEAD. Yes, sir.

Mr. WARREN. And in connection with that organization—that new organization—was anything, and if so, what, done in respect to a new franchise? Were some of the old franchises expiring?

Mr. HEAD. Yes, sir; all of the old franchises of the various companies had practically expired.

Mr. WARREN. So that a new franchise was necessary either for the old or new company?

Mr. HEAD. Yes, sir.

The CHAIRMAN. Did all of the old franchises have a fixed fare?

Mr. HEAD. I do not think so. Some of them had.

Mr. WARREN. Now, will you describe to the commission the principal features of the new franchise, which you think they would be interested in, this plan being the service-at-cost plan, as it is sometimes called.

Mr. HEAD. As a preface, the things the present franchise has negotiated, it might be well to state to the commission some of the peculiarities of the Texas laws.

We have no public-service commission in Texas, but, on the other hand, have what is known as home rule, an act passed by the legislature in 1913, giving to all cities of 5,000 or more practically all the powers of rate regulation that the legislature itself would have.

Prior to this time, however, there had been some laws passed with reference to the operation of street-railway properties. We have a State law that requires a railway company to pave between its rails and 2 feet outside the rails. No city has authority to waive that charge, even if it wanted to.

We also have laws with reference to carrying school children.

Mr. WARREN. Is that because the court has so decided, about the paving, or because the statute is so clear?

Mr. HEAD. The statute is quite clear that that is the case. It has never been repealed. It was not repealed when the home-rule act was passed.

Mr. WARREN. Well, does the statute say that the municipality can not waive it, or shall not do it?

Mr. HEAD. No; I do not think so.

Mr. WARREN. And the court has not said so?

Mr. HEAD. No; there has been no ruling of the courts. The opinions of various attorneys are, however, that the city can not waive that charge.

Mr. WARREN. It is an interesting thing, Mr. Chairman, because we had a law in Massachusetts quite like that—prescribing exactly what the street-railway companies should do; and our supreme court held that the municipality could extend the amount required of the company.

Mr. HEAD. It has never been attacked, and in the development of our franchise we asked the opinion of several attorneys with reference to whether or not these paving charges could be eliminated from the franchises.

We were undertaking to work a service-at-cost franchise, and the effort was made to get relief of all burdens, and we did get relieved of numerous burdens that heretofore had been imposed on the railway companies, such as pole and wire taxes, a gross receipt tax, and other things of that kind which we were specifically relieved of in the contract. The paving burden was one that we discussed a great deal, and we came to the conclusion—both parties to the contract—that the franchise would have to carry with it paving burdens.

We also have in Texas the initiative and referendum, and we have reached the point that the street-car rider, or the electric-light user, or the user of any public utility, practically fixes the fare. It requires only 500 signers to order an election and pass on any ordinance that may have been passed.

The CHAIRMAN. Has the referendum been exercised?

Mr. HEAD. Yes, sir.

Mr. WARREN. This is a local referendum.

Mr. HEAD. Yes, sir; a local referendum, under the home-rule act.

In the city of Houston, the street railway company, the Houston Railway Co., went before the city commission and asked for an increased fare, and after laying all the facts before the commission, the ordinance was passed granting a 6-cent fare. Five hundred people signed a petition asking for a referendum on the ordinance, and it was voted down.

Mr. WARREN. That was in Houston?

Mr. HEAD. That was in Houston. I merely cite that to the commission to show the situation in Texas with reference to utility rates in general.

The CHAIRMAN. Perhaps that was after the people of Houston began to experience great reductions in telephone and telegraph rates made by the Postmaster General, who was from Texas. [Laughter.]

Mr. HEAD. Possibly so.

To get back to the history of the development of the present Dallas franchises, I will state that not only the railway franchises, but the light and power franchises, and the franchises of the gas company—all separate corporations—are under service-at-cost plan. I say "service at cost." They are not real service-at-cost franchises, which I will explain a little later on.

Under the former management, after having a great deal of agitation, running over some six or seven years, in an effort to get these separate railway companies consolidated and get the franchises for the electric-light-and-power company the city of Dallas suggested the cost-of-service franchise.

The mayor—it was in 1914, I believe—was active in trying to work out a utility situation, both railway and lighting, and the Cleveland franchise was brought to Dallas. The city employed experts to make a valuation of the railway properties. The company employed its engineers and experts.

They failed to agree on a valuation; also they could not agree on a kind of a franchise—the rate of return, and other things in connection with it.

The city's charter had to be amended before a service-at-cost franchise could be granted.

The city, in the April election, I believe, of 1914, prepared an amendment to the charter, so that a service-at-cost franchise could be granted, and at the same election put up to the people, on a kind of a straw vote, the controversy, or the model franchise, that the city was offering the companies operating at that time.

The company opposed the franchise and used every effort possible to prevent even the amending of the charter.

The election resulted favorably to the city's side of the controversy. The company refused to accept the franchises as favorably indicated by the straw vote. Some gentlemen in Dallas then went to the owners of the properties and secured an option at a figure somewhat lower than the value that was placed on them by the company's engineers and opened up negotiations with the city, with a view to organizing two separate companies, one for the lighting and one for the railway. These negotiations went on for about a year.

The present franchises were voted upon by the people, as a result of those negotiations, at an election in 1917.

Mr. WARREN. By "an election" you mean a referendum vote, do you?

Mr. HEAD. Well, the franchises, being entirely different from the ones the people had approved before, it became necessary that they be ratified or adopted by the people. In the Dallas city charter franchises must be voted on.

The CHAIRMAN. The electric-lighting company and the other companies are entirely separate?

Mr. HEAD. Yes. The companies were organized under public laws and the capitalization based upon the value agreed upon in the franchise contract. In substance, the Dallas Railway franchise starts out as of a certain date, with a fixed value, known as property value, and every dollar that is added to the property value, thereafter that value becomes the basis for making rates. The franchises provide for a very rigid supervision.

The CHAIRMAN. First, who fixed the value?

Mr. HEAD. Who fixed the value?

The CHAIRMAN. Yes.

Mr. HEAD. The original value was fixed in the contract, in the franchise.

The CHAIRMAN. Who determined the value?

Mr. HEAD. It was a value agreed upon between the men who had the option on the property and the city, approved by the people.

The CHAIRMAN. Go ahead.

Mr. WARREN. Based on the previous engineers' study?

Mr. HEAD. Yes; it was a compromise value.

Mr. WARREN. Yes.

Mr. HEAD. Based on the valuations which were made by the city's experts and by the company's experts.

This figure, the property value, then becomes the basis of rates.

The franchises are different from the Cleveland franchises in this respect: The city undertakes no control whatever of the issuance of the securities, except there is a limit placed upon the amount of bonds that may be issued in terms of property value. You can not issue bonds in excess of 85 per cent of the property value. The contract states that the city will not be concerned in and will have nothing to do with the issuance of stocks and bonds, other than the proviso that I have just mentioned; but the grantee may issue securities without a lot of legal questions on the part of the city, in any lawful manner. We have some State laws that regulate the issuance of securities. There is no provision made for the cost of obtaining money. It is the actual bare bones amount that goes into the property.

The CHAIRMAN. What goes in is the only money that is reckoned with?

Mr. HEAD. Yes.

Mr. WARREN. That is, up to this original amount.

Mr. HEAD. Yes; and every dollar that goes into the property must be approved by the city. The contract provides for what is known as a supervisor of the utilities, and when we want to make an extension of the plant, or spend any money that is to go into property value, a requisition is made for the expenditure, and it is laid before the supervisor. If it is a good large amount—I can not give you the exact figure; I think possibly even as small an amount as \$10,000—it requires not only the approval of the supervisor but of the city commission itself.

Mr. WARREN. Is that a commission city?

Mr. HEAD. Yes, sir; a commission city.

The supervisor has his engineers and his accountants, and the company furnishes an office, a room, in the office building of the railway company for his use, so that he can come there and examine the books. Our accounts are open. We publish every month a statement of what the company has done. We keep an account and present the city each month with just what the books show as to what the property value is, how it is growing, and what the additions have been.

Mr. WARREN. And also of the earnings?

Mr. HEAD. And of the earnings—a complete statement and that statement is published every month in the daily papers in the city.

The rate of return was 6 or 7 per cent on the property value. That was the allowed return. You could make that, if you could. The serious defect in the railway franchise—

The CHAIRMAN. Is that rate of return a preferred charge?

Mr. HEAD. No, sir. The first thing you must do is that out of your income you pay operating expenses, and these franchises provide reserves. Depreciation and replacement reserve must come out next. Then, 6 per cent accident reserve, and the balance to surplus reserve. That is the division of the operating expenses.

Mr. WARREN. That surplus reserve is what is sometimes called the barometer.

Mr. HEAD. Yes, sir.

These reserves are all figured in terms of property value. When the depreciation reserve gets to a certain per cent of the property value, it is considered normal. When the accident reserve becomes a certain per cent of the gross receipts, it is normal; and when the surplus reserve becomes a certain per cent of the property value, it is normal. Then, whenever the surplus reserve reaches the point of so many per cents above normal, fares are reduced for six months, until we see where that reserve is going.

The great defect, as it turned out, in the railway franchise, on account of the war situation, is the fact that it has a top limit and, to that extent, is not a service at cost. You can not go above a 5-cent fare, and, therefore, it is not a service-at-cost franchise, to that extent.

Mr. WARREN. In that respect, however, it is like the Cleveland one originally.

Mr. HEAD. Yes.

Mr. WARREN. Until the Cleveland franchise was changed.

Mr. HEAD. It has this top limit. In addition to the top limit, we introduced into the franchise the London sliding scale. The franchise provides that we are allowed a certain per cent return on the 5-cent fare. If by efficiency in operation and economies, we sell six tickets for 25 cents, they allow us to make $7\frac{1}{2}$ per cent, if we can. Then it goes down. There are three items in the schedule, the idea being that the rate of return would rise as the rate of fare descended.

That system in the lighting company's franchise has worked exceedingly well, and there have been reductions in the lighting rates. The maximum in the lighting franchise, which had the top limit in it, too, but it was such a limit that it could never interfere, because of the fact that it only dealt with the maximum lighting rate, giving you an opportunity to get your revenue from the long-hours consumer, and hence it has been working quite well in the lighting franchise.

I personally am very much of the opinion—I feel quite sure—that but for this top limit, it would be working quite well in the railway franchise in Dallas to-day.

We find a hearty cooperation on the part of the city and the management. Each side seems to remember that, or to understand that what is to one's interest is to the other's interest. We have it demonstrated in the lighting franchise in several instances. For instance, just prior to the time that we took over the property, the ducts had been laid for a large amount of the underground wires in the business section of the city of Dallas, and the time was up in which to

begin putting this copper underground. The city said, "Don't put that in now while copper is so high, because we think we could afford to wait, rather than have possibly a million dollars of excess money in these ducts and have a lot of money that the city of Dallas would have to pay a return on."

The same thing came up in the power plant about the installation of a large turbine, under present prices. They said it would possibly be better, rather than to spend all of this money at this particular time, to wait a while and buy it when we could get it at quite reasonable rates.

We have found the same sort of cooperation on the part of the city officials in the railway franchise.

The question that we are up against now is to get this top limit off. Under the present cost of material and labor, we are not—well, we have made about 4 per cent on the property value.

Mr. WARREN. For what period, Mr. Head?

Mr. HEAD. Well, it has been an average for the past twelve months.

Mr. WARREN. How long has it been operating under the franchise?

Mr. HEAD. It will be two years next October.

The CHAIRMAN. Have you made any extensions to the property during that time?

Mr. HEAD. No, sir; that is the very question I was getting to. The city of Dallas is not properly served. We need more cars. The city is growing very rapidly.

Mr. WARREN. How large is Dallas now?

Mr. HEAD. It was 165,000 when I left. I don't know what it is now. [Laughter.]

Mr. WARREN. You think it has increased since then?

Mr. HEAD. Possibly 200,000. Well, that is one of the great troubles in the utility business in Dallas to-day, to keep up with the very rapid growth of these cities.

If you will pardon me for just a word or two on that, I can show you cities in Texas of 20,000 to-day that had 20 people in them a year ago. It is remarkable. During this oil development, possibly 150,000 or 200,000 people have come to Texas in the last year, in this particular section lying immediately northwest of the city of Dallas.

We are not properly serving the city. We are not making any extensions. We have not the money, and we can not get the money. We need new equipment, and we can not get money with which to purchase that equipment.

The CHAIRMAN. If you are making 4 per cent, I think your credit would be good enough to get out and get new money for cars and necessary extensions.

Mr. HEAD. No; not in Texas.

The CHAIRMAN. Not in Texas?

Mr. HEAD. No.

The CHAIRMAN. How about New York?

Mr. HEAD. I mean money invested in Texas. Rates of interest are very much higher in our section than they are up in this section.

Mr. WARREN. You suffer, too, from the general collapse of the street-railway credit, I suppose?

Mr. HEAD. Yes. We know that we are not maintaining the property as it should be maintained. And that is not all. We have

nursed it every way we possibly could, in order to get the return out of it that we have. The management of the Dallas Railway Co. also managers some other large properties in the State whose general offices are in Dallas. As to the matter of salaries for officials, we are in a position where we can favor the railways, in the matter of salaries for management. We have done everything that we possibly could to keep our heads above water. Our increases in operating expenses have been about like the increases that you have heard testified to. I have heard the testimony of a great many. I have some figures which might be interesting to show some of the increases in Texas.

The maximum paid motormen—

The CHAIRMAN. Do you have this in writing?

Mr. HEAD. Yes, sir.

The CHAIRMAN. Suppose you file it with the reporter.

Mr. HEAD. Yes, sir—showing the increase in motormen's wages from 25 cents to 42 cents, and other wages in proportion.

The statement referred to by Mr. Head is as follows:

Statement of the Dallas Railway Co. showing wages per hour or month, and hours worked per day, July, 1914, and July, 1919.

	July, 1914.		July, 1919.	
	Rate per hour or month.	Hours per day.	Rate per hour or month.	Hours per day.
TRAINMEN.				
First six months of service.....	\$0.20	1 10½		
Second six months of service.....	.21			
Second year of service.....	.22			
Third year of service.....	.23			
Fourth year of service.....	.24			
Fifth year and thereafter.....	.25			
First three months of service.....			1 \$0.38	
Next nine months.....			.40	10½
Second year and thereafter.....			.42	
SHOPMEN.				
General foreman.....	115.00	10	175.00	9
Truck-shop foreman.....	110.00	10	160.00	9
Carpenter foreman.....	.35	10	160.00	9
Paint-shop foreman.....	.32½	10	160.00	9
Inspector foreman (day).....	.32½	10	160.00	10
Inspector foreman (night).....	.23½	13	160.00	10
Carpenters.....	.22½-.32½	10	.47½-.60	9
Armature winders.....	.30	10	.60	9
Truckmen.....	.25-.30	10	.40-.45	9
Carpenter inspectors.....	.22-.27½	10	.47½	10
Machinists.....	.27½	10	.45	9
Machinists' helpers.....	.17½-.25	10	.38-.40	9
Truck inspectors.....	.20-.27½	10	.38-.45	10
Electricians.....	.25	10	.42½-.66	9
Painters.....	.25	10	.40-.60	9
Car shifter.....	.24	11	.45	10
Blacksmith.....	.37½	10	.70	9
Blacksmith helper.....	.20	10	.50	9
Shop cleaners.....	.18	10	.32	10
Fitters.....	.17½	10	.38-.45	9
Car-house cleaners.....	.16	10	.30	10
Car cleaners.....	.15	10	.30	10
TRACKMEN AND LINEMEN.				
Watchman at material yard.....	55.00	10	80.00	10
Line foreman.....	.37½	10	160.00	9
Linemen.....	.27½-.25	10	.55	9
Track foreman.....	.20-.26½	10	95.00-145.00	9
Common laborers.....	.17½	10	.35	9

¹ Approximate number of hours in regular runs.

² The company owns 12 one-man cars. Operators of these cars receive 4 cents per hour in addition regular rate.

Commissioner SWEET. What you want to do now is to get your franchise amended so as to permit you to charge higher fares?

Mr. HEAD. Yes, sir.

Commissioner SWEET. Is that right?

Mr. HEAD. Yes, sir; to get that top limit off.

Commissioner SWEET. Would that require another referendum?

Mr. HEAD. Yes, sir. You can not change a franchise in Texas in any of the larger cities without an election.

Mr. WARREN. What is the term of the franchise, Mr. Head?

Mr. HEAD. It is indeterminate. The city has an option to purchase the property after 20 years.

Commissioner SWEET. At par?

Mr. HEAD. What is that?

Commissioner SWEET. At a hundred cents on the dollar?

Mr. HEAD. No, sir; I believe it is a hundred and five. I forget just the figure, but it is slightly above the property value as fixed.

Commissioner SWEET. Yes; somewhat like the Cleveland plan.

Mr. HEAD. Yes, sir; very much. I think it is identically the same figures as in the Cleveland plan.

Mr. WARREN. But is this matter of the maximum limit the only criticism that you would make, after working under this franchise for a couple of years?

Mr. HEAD. I think so, Mr. Warren. Of course, we have not been going long enough to find some defects in it. The question came up and was discussed at great length, with reference to the question of regulating on a basis of the actual money that goes into the property, under city supervision and the regulation of securities. The city, after considering the matter, was agreeable to this basis of regulation; in fact, a discussion as to whether or not we should be allowed something for the cost of obtaining money, and they said that they would prefer that they rather regulate on the actual money in the property and make the rate of return somewhat higher, in order that we might absorb whatever costs there might be in obtaining money.

The CHAIRMAN. What rate was your company charging before this contract was made?

Mr. HEAD. What did you say?

The CHAIRMAN. What rate was your company charging before this contract was made?

Mr. HEAD. Five cents.

The CHAIRMAN. A 5-cent fare?

Mr. HEAD. A 5-cent fare, with a universal transfer.

The CHAIRMAN. And you are now charging a 5-cent fare?

Mr. HEAD. A 5-cent fare, with universal transfers.

The CHAIRMAN. A maximum of 5 cents?

Mr. HEAD. Yes, sir.

The CHAIRMAN. Has it not looked to you as if the city got everything in this contract, and you got nothing?

Mr. HEAD. Well, I quite agree with you, Mr. Commissioner, that they got the best of it.

The CHAIRMAN. Well, what did you get out of it?

Mr. HEAD. If conditions had continued as they were in 1913 and 1914, as to the cost of materials and labor, I think that we would have been earning at this time about 8 per cent on the property value, and the people would have been riding at six tickets for a quarter.

Now, we did not have to support that, or rather, some of us did feel that there might come a time when the fare would have to be made above 5 cents as a straight fare; but at the time the franchises were negotiated we had the severe jitney competition—that is, the old company management had jitney competition—and one of the agreements of the city was—what you might term a side agreement—that they would pass an ordinance that would relieve the railway company of this jitney competition.

The CHAIRMAN. Has that been done?

Mr. HEAD. Yes, sir; but it took a good long time. It got into the courts; and we have only been relieved of it in the month of May of this year. That was the first month that we have had in which to make a comparison.

Mr. WARREN. What was the result of that comparison, Mr. Head?

Mr. HEAD. It is interesting. The receipts jumped up in May of this year over May of last year about 50 per cent. We never knew how much they were taking.

Mr. WARREN. Fifty per cent?

Mr. HEAD. Yes.

The CHAIRMAN. Of course, you know Dallas is still growing and has been growing some since last May.

Mr. WARREN. You think 30 per cent may have been the normal growth?

Mr. HEAD. The June statement showed an increase in June this year over June of last year, with no jitneys last year, of about 10 per cent. The increase in May this year over May last year was 48.3 per cent. May, 1919, as compared with May, 1918, increased 48.3 per cent.

Mr. WARREN. And the next month it increased 10 per cent?

Mr. HEAD. The next month it was 10 per cent.

Mr. WARREN. Because they had been cut off in June a year ago?

Mr. HEAD. Yes; because they had been cut off in June a year ago.

Commissioner SWEET. How did they get rid of the jitneys?

Mr. HEAD. Well, it is a very long story, Mr. Sweet.

Commissioner SWEET. Well, briefly outline it.

Mr. HEAD. It was done by creating a zone in which they were not allowed to operate, and that zone comprises practically all of the business section.

Mr. WARREN. That was taken into litigation?

Mr. HEAD. That was taken into litigation and had to go through the courts.

Mr. WARREN. And it was sustained, was it?

Mr. HEAD. It was sustained; yes, sir. There had been other ordinances passed, the requiring of bonds and things of that kind. There were altogether four or five lawsuits in the court.

The CHAIRMAN. So far as this contract is concerned, you can not get more than a 7 per cent return upon your capital?

Mr. HEAD. I did not understand it.

The CHAIRMAN. Under this contract you can not get more than 7 per cent upon the capital, no matter what the earnings are?

Mr. HEAD. Yes, sir.

The CHAIRMAN. Can you?

Mr. HEAD. Yes; we have this London sliding scale. If the earnings will permit we can get 8 per cent if we sell 6 tickets at 25 cents.

Mr. WARREN. That is somewhat academic under the present conditions; is it not, Mr. Head?

Mr. HEAD. Very; yes, sir.

The CHAIRMAN. Do you expect to be able to get the lid off that maximum fare?

Mr. HEAD. I rather think we will, for this reason: One of the trading points of the city was that, on account of the fact that they put this lid on, we introduced certain clauses in the franchises by which they can not force extensions when we are not making the allowed return, and we are hopeful of using that to be able to get this lid off, so that the property can grow. That was one of the offsets to the limit's being placed.

Commissioner SWEET. How do the people seem to feel about it?

Mr. HEAD. I think the great majority—well, I know that all the business men, the thinking people, understand that an increase in fare is necessary and are perfectly willing to pay it. Of course, we have an element in our city, like you find everywhere else, that wants to hold on to everything they can get and will oppose—

Commissioner SWEET. They have a prejudice against the company, I suppose, in its present shape?

Mr. HEAD. Yes, sir.

Commissioner SWEET. As well as the old one.

Mr. HEAD. Well, there has not been a great deal of prejudice now. This company is managed by a board of 21 directors. Practically all of them have lived in the city of Dallas and were selected with a view to creating public sentiment favorable to the company and to give it what you would call a moral standing in the community.

The CHAIRMAN. You said the business men favored this contract. Do they use the cars very much, or do they use their own automobiles?

Mr. HEAD. I did not understand you.

The CHAIRMAN. You said the business men favored this contract. I was wondering if they used your cars very much or whether they ride in their own automobiles?

Mr. HEAD. Well, I expect most of them ride in automobiles.

The CHAIRMAN. What does the ordinary citizen of Dallas think about that system?

Mr. HEAD. You mean about the franchise?

The CHAIRMAN. Yes.

Mr. HEAD. When the franchises were voted on, they were carried by a majority of about 2 to 1, and that with one of the evening papers violently opposing the franchises as drawn, and also with the mayor who negotiated the franchises coming out at the very last hour and saying that they were bad.

The CHAIRMAN. Saying that they were bad?

Mr. HEAD. Yes, sir.

The CHAIRMAN. Well, a politician has a right to change his mind.

Commissioner GADSDEN. Is there any agitation in Texas for a State commission, Mr. Head?

Mr. HEAD. Yes, sir; there has been a great deal of agitation for a State commission, which comes from two angles. The long-distance toll service in Texas is not regulated by any authority. The smaller communities, in the towns of less than 5,000, have no rate regulation.

Commissioner GADSDEN. What is the attitude of the public utilities toward that?

Mr. HEAD. The public utilities have taken the attitude of being favorable to a State commission if the State commission has final authority. There was a bill introduced in the last session of the legislature, and it passed the house but did not get by the senate, although it did not reach a vote, that undertook to create a State commission, making the commission's jurisdiction in home rule cities appellate or upon the request of the municipality. That, I think, will really solve the situation in Texas.

Mr. WARREN. Was there not formerly a railroad commission in Texas?

Mr. HEAD. There is a railroad commission there now.

Mr. WARREN. It has jurisdiction only over the railroads?

Mr. HEAD. Only over the railroads.

The CHAIRMAN. At this point, we will adjourn until to-morrow morning at 10 o'clock.

(Whereupon, at 10 o'clock p. m., the further hearing of this case was adjourned until to-morrow, Wednesday, July 23, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *July 23, 1919.*

Met pursuant to adjournment at 10 a. m.

Present: Parties as before.

The CHAIRMAN. Are you ready, Mr. Warren?

Mr. WARREN. All ready; yes, sir. Prof. Bullock, take the stand.

STATEMENT OF PROF. CHARLES J. BULLOCK.

Mr. WARREN. Your full name, Prof. Bullock, is Charles J. Bullock?

Mr. BULLOCK. Charles J. Bullock.

Mr. WARREN. You are connected with Harvard University?

Mr. BULLOCK. I am, as professor of economics.

Mr. WARREN. And you have had occasion repeatedly to make special study of questions of taxation, I think?

Mr. BULLOCK. I have.

Mr. WARREN. You have advised various Massachusetts legislative commissions and assessment commissions as to taxation along various lines?

Mr. BULLOCK. I have.

Mr. WARREN. And if I am not mistaken, you had a great deal to do with the drafting of the Massachusetts income tax adopted a few years ago?

Mr. BULLOCK. I had.

Mr. WARREN. Have you also had occasion to study the actual methods of taxation of public utilities and of street railways?

Mr. BULLOCK. I made a study of the taxation of corporations in general for the purpose of working out a revision of our own corporation tax laws in Massachusetts. I have also served as chairman of a committee appointed by the National Tax Association to investigate the taxation of public service corporations, which committee submitted a report of which I furnished you a copy.

Mr. WARREN. And have you made a study of street-railway taxation for the purpose of submitting certain data and views to this commission?

Mr. BULLOCK. I have recently made a special study of street-railway taxation for the purpose of presenting a memorandum to this commission, and I have prepared a memorandum.

Mr. WARREN. Now, will you take up that memorandum and go through it without my questioning you?

The CHAIRMAN. Have you extra copies of it?

Mr. BULLOCK. I have left with Mr. Warren three copies of this memorandum and also a copy of the report of the National Tax Association, that he will supply you, and with your permission I will not read the memorandum, but undertake to summarize as briefly as possible the main points.

The CHAIRMAN. Very well.

Mr. BULLOCK. The memorandum begins by setting forth what are the existing methods of taxing street railways, nationally and locally. The Federal taxes, such as the Federal income and excess-profits-taxes and the capital stock tax, are doubtless known to your commission. In the aggregate they are not a particularly important part of the total burden of taxes paid by street railways, because the capital-stock tax is not very heavy and the income of street and electric railways in recent years has been small. However, the rates of those taxes have increased in recent years. I judge that the increase in rates of the tax has been greater than the decrease in the net income of the street railways, so that probably during the last two or three years there has been some increase in the Federal taxes levied upon street railways.

The State and local taxes are various in form and not easy to summarize. Generally speaking, in most of the States the property of street railways is subject to local taxation. In about 22 of the States all the operating property and sometimes the whole property of the concern as a unit is valued by the State board and then a State tax levied at the average State rate, for instance, as in Wisconsin; or the valuation determined by the State board is certified back to the local taxing authorities and included in the local assessment rolls, and is subject to local tax.

Those property taxes in principle are perfectly equal and perfectly just, but it sometimes happens that the State boards under the law are required to assess at true value, whereas the general mass of properties subject to local taxation are under value, assessed at one-half or two-thirds of what they are worth, with the result that street railroads, like other public-service corporations, are assessed at a higher valuation than other properties subject to the general property tax. In a few States relief is afforded by equalization, as set forth in the report of the committee of the National Tax Association. But in the average State the statutes do not permit the average State board to give effective relief.

In addition to the property taxes you find a variety of miscellaneous taxes, which I have classified here as taxes on gross earnings, on capital stock, and license taxes. In three States, Maine, Connecticut, and California, the operating property of street railroads is exempt from taxation.

Commissioner SWEET. What was the second State?

Mr. BULLOCK. Maine, Connecticut, and California the operating property is exempt from local taxation, and from State taxation for that matter, as property, and the railroads pay a tax on their gross receipts in lieu of taxation on their operating property.

In some other States, enumerated in the memorandum, they levy gross-receipts taxes in addition to property and franchise and capital stock and license and other taxes, such gross-receipts taxes usually being at a lower rate than those prevailing in Connecticut and California. The gross-receipts tax is therefore extensively used, it being the only tax on operating property in three States and it being a supplementary tax in 10 or a dozen others.

Then there is a capital-stock tax which electric railways usually in common with other corporations, pay, which ordinarily is not heavy. It is a small fraction of 1 per cent. But in times like this small taxes mount up, especially when one small tax is added to another small tax and that to another. In Pennsylvania the capital-stock tax is the principal tax levied on street railroads outside of Philadelphia and Pittsburgh. That capital-stock tax is at the rate of 5 mills on the dollar of the valuation of the capital stock, and it is in lieu of other taxation of the property of the railroad. But there is in addition to the capital stock tax a gross-receipts tax.

Commissioner SWEET. I did not quite understand that last.

Mr. BULLOCK. In addition to the capital-stock tax in Pennsylvania there is a gross receipts tax as well, so that that of 5 mills on the dollar is not the only tax paid. There is also a tax on the bonds and obligations of electric railroads, which is a part of a general tax levied on all corporation obligations. That corporations are authorized to deduct from payments made to bondholders, and in many times past they have assumed the payment of that tax and did not deduct it.

Then there is a great variety of license taxes and charges about which it is very difficult to get comprehensive information. There are State license taxes in a few States and a great variety of local license taxes; especially in the Southern States, you will find a pretty comprehensive system of privilege taxes which are license taxes of one sort or another, applicable to a great variety of industries. I have run through the different taxes in the strict sense of the word that the street railroads pay locally and nationally and will presently present some figures thereon.

In addition to those taxes there are a multitude of other payments, other public contributions, made in connection with their occupation of the streets or made in payment for franchises under arrangements in effect in times past. These payments are frequently of a contractual character; they are legally not taxes at all. In fact, however, they amount to extra contributions made to the public treasury which the street-railroad industry has to support, and therefore they should be mentioned here and statistics about them will presently be presented.

Now, in regard to the taxes paid, there are some statistics contained in this memorandum. The data have been carefully prepared by the American Electric Railway Association, and I have made an analysis of them which gives the following rather interesting results:

The taxes on real and personal property paid locally by the electric railways in 1917 amounted to \$21,800,000, and the miscellaneous and other taxes paid to State and local governments together with the taxes paid to the Federal Government amounted to \$23,900,000.

Commissioner SWEET. In addition to the twenty-one million?

Mr. BULLOCK. In addition to the twenty-one million; the total taxes proper amounting to \$45,756,000. The other public contributions which I have just been referring to amounted to \$17,500,000 in addition to the taxes; so that the total public contributions of the street railways amounted to \$63,200,000 in round numbers.

Of course, a total figure of that sort does not mean much until you take it in its relation to the earning power of the railroads and some other things. Now that figure of \$63,000,000 in round numbers amounted to 8.67 per cent of the gross earnings of the electric railways. That will show you that the tax burden is a heavy one, particularly with reference to this industry.

In the street-railway industry it used to be said or the figures used to show that you invested \$5 or \$6 of capital to get \$1 of gross receipts. That means to get \$100,000 of gross receipts you have an investment of \$500,000 to \$600,000 of capital. Assuming that the cost of capital—your interest charge in other words—is 6 per cent, you have got a charge of \$30,000 to \$36,000 for capital against your \$100,000 of earnings. Therefore a tax burden of 8 per cent on top of your capital charge that may amount to 30 per cent or more mortgages a very large part of the available revenue of the street railways. In an industry where you invest \$100,000 and turn it over two or three times a year, getting, say, \$300,000 gross, you have an interest charge of \$6,000 against \$300,000 gross, and a gross receipts tax of 8 per cent, while it is a larger tax, because the gross is larger, it comes out of a larger margin of earnings above operating expenses; 8.6 per cent for an industry where the capital charges are necessarily as large as they are in the street-railway industry is a heavy tax. I further—

Commissioner SWEET. That is not all tax. That includes the contractual—

Mr. BULLOCK. It includes all these public contributions. It is not all taxes. It is about—

Commissioner SWEET. But it represents money that has to be earned by the companies and is made to the public?

Mr. BULLOCK. It has to be earned and is made to the public.

Commissioner SWEET. Either in the form of taxes or by contractual agreement?

Mr. BULLOCK. Yes.

The CHAIRMAN. Does that include your assessment taxes, your paving tax?

Mr. BULLOCK. It includes everything that the figures gathered by the association identified as a public contribution for the use of streets and—

Commissioner SWEET. I take it that that was practically paid over in money and not in service, like paving?

Mr. BULLOCK. Sometimes these contributions take the form of carrying public employees without charge or doing work on the streets, such as snow removal. Now whether the statistician of the

association has included the money spent for snow removal in this item I can not tell you, but he can.

Commissioner SWEET. We ought to know that.

Mr. BULLOCK. I have assumed those figures are in here, so these are outside figures. If they are not, then that estimate of 8.6 per cent should be raised. I assume that that is included here, and if it is not the statistician of the railroad association can correct that figure.

Commissioner SWEET. Very well.

Mr. BULLOCK. The gross operating revenues have increased, but while the net operating revenue has decreased in recent years, the taxes down to the year 1918 have gone on increasing; that is, the taxes and other public contributions. In 1912 the total taxes and other public contributions amounted to \$50,000,000 in round numbers; in 1916 they had increased to \$62,000,000; in 1918 they had risen to \$65,500,000. I leave out the intermediate years, which simply show the steps in the ladder.

Now during that period the net revenue from operations has diminished. The net revenue was \$228,000,000 in round numbers in 1917 and it decreased to \$192,000,000 in round numbers in 1918, a decrease of \$36,000,000. At the same time the taxes proper, leaving out these public contributions, increased from \$45,700,000 to \$49,500,000.

Still more striking perhaps is the fact that the net income after all charges in 1917 was \$56,000,000 in round numbers, and in 1918 it fell to \$20,000,000 in round numbers. In 1917 the net income after charges of \$56,000,000 may be compared with taxes paid to the amount of \$45,000,000, public charges or contributions being ignored. In 1918 the net income of \$20,000,000 after paying all charges including taxes may be compared with the total amount of taxes paid amounting to \$49,000,000. The taxes alone apparently took \$2.50 for every dollar of net income left after meeting the charges against the operating revenue. The industry apparently is not only heavily taxed, but up to 1918 at least, the last year for which figures are available, the tax burden had increased.

Now I pass to a discussion of the principles that ought to govern the taxation of street railways. I will first discuss the matter in a general way, referring for further details to the report of that committee of the National Tax Association.

There are three theories that have been entertained at different times about the taxation of public-service corporations. The earlier theory of the three—and it was the one that prevailed 20 or 30 years ago—was that public service corporations were possessed of very valuable franchises from which they were deriving a large profit and that they ought to be specially taxed. The period of the nineties was a period of continual discussion of franchise taxation. That theory was perfectly logical in those days. It was the theory that I taught classes in college. The public utilities, with the exception of the railroads, were not under effective public regulation in most States. The street-railway industry was a profitable industry, and the companies possessed valuable franchises which in many cases they had received on very favorable terms. Under those conditions it was perfectly natural to look upon them as offering a fit subject

for special taxation. The special franchise tax of the State of New York is the best illustration of the special taxation of franchises that came in in that period.

Under those conditions of unregulated operation of street and electric railways by public corporations, which were frequently very profitable, that theory was justified. The companies were the possessors of valuable special privileges and it was proper to tax them.

With the coming of regulation, however, of the public utilities, the basis for that theory changed. Under public regulation I take it we have got to assume that public utilities are limited to a reasonable return upon the capital investment and that their service also is subject to regulation. Under those conditions, any special charges that are put upon them shifted to the public. Before regulation came in these special taxes might have been assumed to be paid out of the company's monopoly profit. Under a system of regulation, special taxation of public-service corporations simply increases the cost of rendering the service and in one way or another has got to be taken into account. If it is not recognized in rate making, then it will simply come out of the service. The public has to pay either in higher rates or in service, in less service or in poorer service.

So then, when we pass to a régime of regulation and pretty effective regulation of public-service corporations the situation changes, and the matter of the proper method of taxation seems to need to be reconsidered. Two theories have been advanced premised on effective regulation of public utilities. One of those theories is that with the regulation of public utilities you do not need to consider whether their taxation is more or less heavy than that of other companies; it all comes out of the consumers of the service and not out of the companies. You can employ the companies as an agency for collecting special taxes from people who ride upon the cars. Upon the other hand, you can, if you please, exempt them from all taxes. The companies will not profit because their rates are regulated accordingly, and the consumers will get untaxed service.

In the report of this committee which I submit with my memorandum the objections to that view of the case are set forth, and I believe they are valid. Under normal conditions it would seem that street-car riders ought to pay just what the service costs, and not more nor less. If you exempt public utilities from taxation and give the riders untaxed service, you increase by so much the taxes that owners of property have to pay, and that is something that a city ought not to do and can not afford to do under normal conditions.

There are many demands for city expenditure. To fritter away your source of revenue by giving untaxed service, by granting exemptions which benefit the rider, is bad municipal finance and it is not fair as between the car riders and taxpayers who are not necessarily the same people or, if they are the same people, do not use the cars in the same proportion that they pay taxes. Our municipal taxes fall very largely upon real property and that may be very largely owned by nonresidents who get no benefit from the street-railroad service whatever and never patronize it. Then, even those that own property in the city and pay taxes there do not use the street railways in precise proportion to their ownership of property. Putting part of the cost of furnishing street-railway service into

the tax levy is not under normal conditions good finance. The proper theory would seem to be that of equal treatment of the industry with other property. It should not be burdened beyond other property in business; it should not pay tax less than other property in business. If you levy upon the industry of the electric railways taxes precisely like those levied upon other similar objects of taxation, you hold the balance level between the taxpayers and the car riders and you do substantial justice to all parties in interest, and the correct theory seems to be that of equal taxation of public utilities under normal conditions.

Now every general theory has, of course, certain limitations. The limitations to this theory of equal taxation are implied in the expression "normal condition" that I have used. In time of war when revenue is the paramount need, the Government may very properly levy a tax on transportation, as it has just recently done during the war. And similarly, in times when transportation facilities are needed and it is not practicable to get them in any other way, governments may properly offer exemptions from taxation, as they have often done. The exemption policy has been abused. Perpetual grants of exemption have been given which were never justified, but exemption for a limited number of years of companies undertaking public-service enterprises which it is not likely can prove immediately profitable may be justified under special conditions.

So, then, I conclude that your commission might very well find that street railways under normal conditions ought to be taxed like other similar enterprises, neither more nor less, and it might at the present time, if it finds a serious emergency existing which can not be effectively remedied in other ways, it might perfectly consistently recommend relief from some of the taxation that street railways now bear; and I shall make some suggestions on that point.

Nothing but an emergency would lead me to think that street railways ought to be relieved from equal taxation. I have always maintained the theory of equal taxation—that is for 20 years past—but, however, always with this qualification—that circumstances that would justify levying a tax on water or transportation or lighting would justify heavier taxation of regulated public-utility companies, and circumstances that would offer levying a tax to pay a bounty for a needed public service that you could not otherwise get would justify reducing the burdens of railroad taxation.

Now looking over the taxes that street railways pay, you find that Federal income and excess-profits taxes so far as they fall upon street railways are perfectly conformable to the theory of equality and ought not to be removed unless there is an emergency that justifies it. You find that local-property taxes are in principle perfectly conformable to the theory of equality and that they ought not to be removed unless there is a very serious emergency that justifies it. You find that these miscellaneous taxes on gross receipts, capital stock, and license charges levied in addition to property taxes, are frequently more in the aggregate than other properties bear. Sometimes they are not. You will find in various States—I have alluded to the Southern States and some of the Western States—you will find their property subject to special taxes, and also to privilege and license taxes, and under those conditions there is no inequality in imposing similar charges on street railways. But

where, as in New York or Pennsylvania, you have taxation on property and have in addition a gross-receipts tax or some other kind of a tax that other property does not pay, you have a departure from the principle of equal taxation and you have a special taxing on transportation which is not consistent with the theory of equal taxation.

Now I come to the miscellaneous public contributions that I have already alluded to, which in the aggregate are so large; and I invite your attention to them. They are an inheritance from the past. They came from the days when street railways were not regulated and frequently derived large profits from the use of the franchise which they enjoyed. Under a system of regulation of public utilities, the charges must be assumed to fall upon the street-car rider and they amount to a special tax on the transportation industry in all cases where they exceed a figure which fairly represents the special charges that the presence of the street-railway tracks in the streets occasions the city.

About that point—about the amount of special expense to a city occasioned by street-railway tracks—there has always been difference of opinion. The companies have been inclined to think that the presence of the tracks, at least under modern conditions, did not occasion great expense and wearing out of the pavement and the surface was due to the use of the tracks by other vehicles than the cars. The cities, on the other hand, have undoubtedly made this theory of charging for upkeep of the streets an excuse for levying special taxes on the transportation industry far in excess of the legitimate charges that the users of street cars should pay. The correct principle seems to be, however hard it may be to apply it, that any special damage, any special extra expense for upkeep of streets under normal conditions may very properly be put upon the street-car riders. It should be considered just like an equal amount of tax similar to that which other similar enterprises pay and the car riders should pay it. Anything beyond that point under normal times violates the principle of equality in taxation and in a crisis like the present is in every way objectionable. A thorough revision of those charges in all cases where they exceed a fair charge for extra cost of upkeep of streets would seem to be one of the things needed.

Now in conclusion—

Mr. WARREN. The only principle upon which it would be justified would be that stated in this report of the committee, would it not, Prof. Bullock, where it is stated somewhat graphically as follows: "The principle of plucking the most feathers with the least squawk"?

Mr. BULLOCK. Well, I am not sure about that. As I have said, there has always been difference of opinion as to whether the presence of the car tracks occasioned special extra cost for keeping up the street. I have supposed that it did. My opinion of that point is that of a layman. I am not an engineer and am not expert in the matter of street construction. But of course it is perfectly clear that these charges in many cases vastly exceed any such figure, and if charges could be reduced to that figure, substantial relief could be given.

In the concluding part of my brief I suggest first the revision of these special charges. They used to be a means of securing to the public treasury a part of the frequently excessive profits of unregulated monopolies. They are to-day a special charge on the industry

of railway transportation and they are not consistent with the principle of equal taxation.

I suggest, in the next place, that the other special taxes levied by the States—the additional taxes, gross receipts, and capital stock and licenses—ought also to be reconsidered, and in so far as they lead to a burden of taxation on street railways exceeding that borne by other business enterprises, they should be reduced or abolished.

I suggest, in the third place, that relief from the ordinary taxes imposed upon property ought to be the last remedy. It can be justified only upon the ground of extreme emergency and the failure of other relief measures. Before you reduce the ordinary taxes levied on property you should raise your fares to the maximum point that is practicable, looking at the matter from the revenue result. The industry should not be relieved of the ordinary property taxes which other property pays except as a last resort. In some cases, apparently we are about at that point. The increase of fares in my own State has certainly reached the revenue point, and the revenue result is somewhat disappointing. We very likely have got to give relief in taxation if we want to keep a good many of our street-railroad tracks down.

Commissioner SWEET. That is in Massachusetts?

Mr. BULLOCK. That is in Massachusetts. I suggest, in the next place, that if relief is to be given from the property tax it would be better not to repeal the tax but to suspend its operation for a term of years and to provide for an income tax on the companies during that interval, if there are any companies—

Commissioner SWEET. Would that be on gross or net income?

Mr. BULLOCK. A tax on net income, if there are any companies that are prosperous. We have one company in Massachusetts, if I remember, that was prosperous, or was prosperous six months ago; at least it was not unprosperous. If any companies are earning a substantial amount of net income they might pay a moderate income tax. This substitution for a term of years of a tax on net income for a tax on property would maintain the principle that street railways ought to be taxed and it would, as the industry revived and begins to see better days, bring in a normal contribution to the public treasury.

I finally suggest that if the Federal Government is to lead the way, reduction might very well be made or total exemption might very well be granted from the Federal income and excess-profits taxes. The revenue sacrifice by the repeal of those taxes would be a small thing for the Federal Government. The Federal Government by a very small sacrifice can afford substantial relief. For the State and local governments to set aside their property taxes means a comparatively large sacrifice for a particular locality.

Mr. WARREN. You stated, I think, that there was no sound principle on which the general taxpayer could be relieved by the imposition of special burdens on the street railways not called for by special conditions—

Mr. BULLOCK. Nothing but a great emergency like war.

Mr. WARREN. And of course you would apply that, I assume, equally to the taxpayers on a particular street, that they ought not to be relieved from the otherwise local assessments for sprinkling a street, repairing and similar items by casting the burden on the

street railway except to the extent that the car riders caused the trouble.

Mr. BULLOCK. Undoubtedly.

Mr. WARREN. You have spoken of the present crisis in street railways. Do you consider it a very serious one?

Mr. BULLOCK. So far as my observation and information goes, it has come to a point in some parts of the country where it is a question of having the street railroad. In our part of the country, as you know, we are tearing up tracks, and we have a good deal more miles of track that ought to come up because it is absolutely unsafe for street-cars to run over them.

Mr. WARREN. Unsafe?

Mr. BULLOCK. Absolutely unsafe.

Mr. WARREN. That is, the companies have been absolutely unable, or at any rate they have not maintained the tracks in safe condition in many cases?

Mr. BULLOCK. They have been absolutely unable. There are streets in Massachusetts where, if you drive an automobile, you do well to get over on the other side of the street if a street-car comes along; you do not know whether it is coming on the track or is not coming on the track as it reaches you. I refer, of course, to our rural lines.

Mr. WARREN. In view of the injury the automobiles have done to the revenues, that might not be an unmitigated evil.

Mr. BULLOCK. I was referring to the condition of the industry. The tracks ought to come up.

Mr. WARREN. Yes, I know it, but if only the automobile driver were going to suffer from the unsafeness, I do not know that we should shed so many tears. Under those circumstances, should you say that the imposition of these special burdens or special taxes not called for by the injury done by the car riders to the street are really indefensible?

Mr. BULLOCK. I should say it was absolutely indefensible.

Mr. WARREN. I do not know that you expressed any definite opinion as to whether in some cases this emergency is so great that the relief temporarily from the ordinary taxation should be extended at this time—

Mr. BULLOCK. Well, there are companies that are not earning operating expenses; and if a proper allowance for depreciation is made, of course vast numbers of companies are not earning their operating expenses, and conditions are getting worse. That is, wages are rising and costs of materials and supplies have not begun to decline. So far as I know, there has been no improvement in the operating ratio; the operating ratio has been going up. If there has been any improvement it is very, very recent, and I have not heard about it.

Now under those conditions we are likely to reach a point in Massachusetts where we have got not only to abolish taxes but we have got to go down into our pockets and make up deficits, if we are going to have street railway service.

Mr. WARREN. If we are going to have it—

Mr. BULLOCK. We have got to have it.

Mr. WARREN. In Massachusetts, you are familiar with the laws there relative to the issue of securities and the length of time those laws have been in effect?

Mr. BULLOCK. Yes.

Mr. WARREN. So that in the ordinary sense of the term, should you say to the commission that there is substantially no stock watering affecting the situation of street railways in Massachusetts?

Mr. BULLOCK. There has been none since the nineties. Our anti-stock-watering laws date back to about 1893, 1894, or 1895; do they not?

Mr. WARREN. Yes.

Mr. BULLOCK. And all issues of securities have been subject to the approval of the commission, and the securities outstanding that were issued before that time are a small part of the whole proposition. Even with those securities the amount of stock watering was not so large in many cases. Our first street railroads were built in days when corporations in our part of the country were financed by capital stock and when bonds were not known. Our early railroads were built by capital stock, and there was a period in the seventies and eighties when there was stock watering, but there has been none since the nineties.

Mr. WARREN. And in many, if not all, cases when those laws were first put into effect in 1894, current issues were made dependent upon appraisals of the property to verify the integrity of the past issues; were they not, as a general practice?

Mr. BULLOCK. The commission passed upon the amount of securities to be issued and it has checked up the cost. We can say substantially there has been no stock watering.

Mr. WARREN. So that the plight of the street railways in Massachusetts, whatever it is due to, is not due to that?

Mr. BULLOCK. In the case of roads like the Boston Elevated every share of stock represents a payment of more than par. The stock has been put out at premiums. I do not remember the Elevated figures, but every share of Elevated stock represents something like \$110 or \$115 of money put into the property.

Mr. WARREN. And that company was not incorporated until after the laws you refer to were put in the statute books?

Mr. BULLOCK. Not until about 1898.

Mr. WARREN. That is all I want to ask Prof. Bullock.

The memorandum presented by Mr. Bullock is as follows:

THE TAXATION OF ELECTRIC RAILWAYS.

In this statement the taxation of electric railways will be considered under the following heads: (1) The existing method of taxing electric railways; (2) the amount of the taxes and other public contributions paid by electric railways; (3) the principles which ought to govern the taxation of electric railways; (4) the measures which ought to be adopted to relieve electric railways in the present crisis.

1. THE EXISTING METHOD OF TAXING ELECTRIC RAILWAYS.

The payments which electric railways are required to make to the various governmental authorities, Federal, State, and local, may be conveniently divided into two classes: (a) Taxes proper and (b) other public contributions. The former include property, income, business, license, franchise, and other

Data on this subject may be found in the U. S. Census Report on the Taxation and Revenue Systems of State and Local Governments, 1914; the report of the U. S. Commissioner of Corporations on the Taxation of Corporations, 1909-1915; and the report of the Special Commission on the Taxation of Corporations of the State of Connecticut, 1913, Appendix. Statistics concerning the amount of taxes paid by electric railways may be found in the various reports of the U. S. Census on the electric-railway industry; other data have been gathered by the American Electric Railway Association for the information of the commission.

taxes, which electric railways pay in common with other corporations and, in many cases, with individual taxpayers. The latter include a great variety of charges such as payment for street paving and other work in or on the streets, free transportation for public employees and other similar services rendered governmental authorities, payments, frequently of a contractual character, for the privilege of using the streets, and miscellaneous minor items. Concerning these payments it is impossible to make any summary statement because they differ so widely in character, and all that I can undertake is to present, later on, some statistics that will show how important a change these payments are upon the revenues of electric railways.

The taxes which electric railways pay may conveniently be summarized as follows:

A. Property taxes. In 43 States and the District of Columbia, electric railways come under the operation of the general-property tax. In 22 of these 43 States¹ either all the property of such railways or all of what is known as their "operating" property is valued by some State official or board. In a few of these 22 States, such as Wisconsin and Vermont, the taxes levied are imposed by and payable to the State government, but in most cases the valuation fixed by State authorities is certified back to the local taxing districts for taxation at the prevailing local rates.

In 15 States² the property of electric railways is locally assessed and taxed exactly like any other property.

In 5 States the assessment of the electric railways is divided between State and local authorities. In Massachusetts, some or all of the tangible property is subject to local taxation, while a State tax is imposed upon the franchise. Colorado has State assessment of electric railways operating in more than one county and local assessment of railways operating in only one county. Illinois has State assessment for railways incorporated under the general railroad act, while for other railways it prescribes local assessment of the tangible property and State assessment of the franchises.

In Rhode Island and the District of Columbia property taxation is confined, respectively, to tangible property and real estate, while the intangible property is reached by the gross-receipts taxes and is not subject to taxation as property. In Rhode Island the assessment of the tangible property is made by the local assessors.

B. Gross receipts, tariffs. In 3 States (California, Connecticut, and Maine) the "operating" property of electric railways is exempt from taxation, and in lieu thereof taxes are levied by the State governments upon gross receipts. Real estate not used for "operating" purposes is subject to local taxation like other real estate.

A considerable number of other States³ levy taxes upon gross receipts of electric railways usually, as additional taxes or in lieu of taxes upon franchises or intangible property. In Massachusetts, however, the gross-receipts tax is in lieu of other contributions which the railways were formerly required to make in connection with their right to use the streets.

C. Taxes on dividends.—At least two States, Massachusetts and New York, provide for taxes on dividends in excess of 8 per cent. It does not appear, however, that occasion has ever arisen for the imposition of such taxes in either State.

D. Taxes on capital stock.—In addition to other taxes, at least 14 States⁴ impose taxes on the capital stock of electric railways. Usually these taxes are comparatively light, but in times like the present they are not a negligible factor. In Pennsylvania the capital-stock tax is levied at the rate of 5 mills upon the dollar and is (except in Philadelphia and Pittsburgh) in lieu of a tax upon the operating property of electric railways. This tax is supplemented by a tax levied at the rate of 4 mills on the dollar upon corporate loans, which

¹ These States are Alabama, Georgia, Idaho, Indiana, Kansas, Maryland, Missouri, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Tennessee, Utah, Virginia, Vermont, Oklahoma, Washington, West Virginia, Wisconsin. It is possible that Wyoming should be added to this group of States, but I have been unable to determine this point and shall therefore omit Wyoming from consideration in this statement.

² These States are Arizona, Arkansas, Delaware, Florida, Iowa, Louisiana, Michigan, Minnesota, Mississippi, Montana, Nebraska, New Jersey, South Carolina, South Dakota, Texas.

³ These States are Alabama, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia.

⁴ Arkansas, California, Georgia, Idaho, Nevada, North Carolina, Oregon, Pennsylvania, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia.

tax is deducted by the corporations from interest paid to the bondholder, except in cases where companies have assumed liability for the tax.

In addition to these State taxes electric railways have been subject in recent years to a Federal tax upon their capital stock.

E. License taxes.—A considerable number of States impose either State or local, and sometimes both State and local, license taxes which take various forms that are very difficult to classify. The aggregate amount of such charges is sometimes considerable and, since they are always levied in addition to other taxes, they are a factor of no small importance.

F. Federal income tax.—Since 1909 electric railways have been subject to a Federal tax on their net income, which was at first an excise imposed on corporations and since 1913 has been a part of a general income tax. With the shrinkage of the net income of electric-railway companies the amount of taxable income has, of course, decreased, but upon the other hand the rate of the normal income tax has increased so that the Federal tax is at the present time a substantial burden. This it is entirely in the power of the Federal Government to remove if it desires to cooperate with the State and local governments in rehabilitating the electric-railway industry.

G. Federal excess-profits tax.—The Federal excess-profits tax must also be mentioned, even though most electric railways have shown so small a return upon the capital invested in them as to exempt them from the payment of any tax under this head.

2. THE AMOUNT OF TAXES AND OTHER PUBLIC CONTRIBUTIONS PAID BY ELECTRIC RAILWAYS.

In the year 1917, according to the United States census, the electric railways of the United States paid taxes and other contributions amounting to \$63,279,000, which may be classified as follows:

Taxes on real and personal property-----	\$21, 804, 000
Taxes on earnings and capital and other bases-----	23, 952, 000
Total taxes-----	45, 756, 000
Other public contributions-----	17, 522, 000
Total taxes and other contributions-----	63, 279, 000

The total payments for taxes and other contributions amounted in this year to 8.67 per cent of the gross earnings of the electric railways. This percentage would be moderate in the case of a business where the gross receipts, or annual turnover, amounted to two or three times the capital investment; but it is exceedingly heavy in an industry where there is capital investment amounting to several dollars for every dollar of annual gross receipts.

Although net operating revenue has actually decreased in recent years, the taxes and other public contributions of the street railways appear, at least down to the year 1918, to have increased. In 1912 the total taxes and other contributions, according to data compiled by the American Electric Railway Association from census reports and from replies from 214 companies, amounted to \$50,086,000. In 1916 these charges had increased to \$62,106,000, while in 1918 they had risen to \$65,561,000. The total of these payments for 1912 amounted to 8.55 per cent of the gross earnings of the railways. In 1918 they amounted to 8.57 per cent.

The most striking commentary upon the present situation of the electric railways with reference to taxation, is the fact that in the year 1918, when the revenue remaining after defraying operating expenses decreased from \$228,989,999 to \$192,615,000, the taxes paid by electric railways actually increased from \$45,756,000 to \$49,496,000. Even more striking is the comparison of the amount paid in taxation with the net income of electric-railway companies after making deduction for all charges. This net income in 1917 was \$56,450,000, after the payment of taxes amounting to \$45,756,000. In 1918, however, the net income fell to \$20,183,000 after paying taxes amounting to \$49,496,000.¹

¹ I have taken these statistics from the tables compiled by the American Electric Railway Association for the information of this Commission. The figures for 1918 are in part estimated.

3. THE PRINCIPLES WHICH OUGHT TO GOVERN THE TAXATION OF ELECTRIC RAILWAYS.

There are three theories which have been advanced at different times concerning the taxation of street railways and other public-service corporations.

The first of these is the theory that public-service corporations should be subject to taxation much heavier than that imposed upon other classes of business or property, because they hold and enjoy special franchises of great value. A generation ago, before our Federal and State Governments had undertaken to regulate effectively the service and charges of public-service corporations, this theory provided a natural and logical remedy for some of the conditions which existed in the days of unregulated monopoly. Taxes upon the property or business of unregulated monopolies will tend to fall upon the profits of the monopolists, and by their agency the Government may secure a share of the profits resulting from the possession of valuable public franchises. But the situation was radically changed when public-service corporations were brought under effective regulation. Under the latter condition, regulation of rates and service must proceed upon the theory that the corporations have a right to earn a reasonable return upon their investment. Special taxes upon regulated monopolies increase the expense of providing the service and therefore increase the rates necessary to yield a reasonable return or diminish the resources available for extending and improving the service. Effective regulations of public utilities not only remove the evils which in former times led to the demand for special taxation, but also alters the incidence of such taxation.

Since we are now committed to the policy of regulation of public-service corporations, we should readjust our theories of taxation to present-day facts and conditions. We must assume that special taxes upon electric railways or other public-service companies increase the expense of providing the service and, in the long run, must be borne by those who use the service either in the form of increased rates or reduced facilities. There may be circumstances, such as extreme need for public revenue, that can be provided in no less inconvenient or objectionable manner, which justify the imposition of special taxation upon transportation and other public-service companies. But these circumstances must be regarded as exceptional, and we must conclude that under a regime of effective public regulation it is undesirable to subject public-service corporations to heavier taxation than is imposed upon other classes of business or property.

The second theory takes effective regulation of public utilities for granted and holds that such regulation makes it unnecessary to consider whether the taxation of public-service corporations is heavier or lighter than that imposed on other business or property. Such corporations, it is said, might even be exempted from all taxation provided that their charges were reduced or their service improved in a measure corresponding to the benefits they derive from such exemption. And, on the other hand, it is argued that taxes upon such corporations may properly be increased to any desired extent provided that rates are increased in a corresponding degree. In the former case the public will secure untaxed service and in the latter the Government will employ the corporations as an agency for collecting special taxes. In neither case is the interest of the corporations affected, either favorably or adversely.

This theory upon examination will be found to ignore the effect of taxation upon the real parties at interest, namely, the taxpayers and those who use the services of public service corporations. Between these two classes of people there is no necessary identity of interest. Here I may be permitted to quote from the report of a committee of the National Tax Association appointed to consider the taxation of public-service corporations:¹

"With corporations national in scope it may be true that, if we leave out of account citizens residing abroad and foreigners residing temporarily in the country, the persons that consume the service are the same body of people that must pay the taxes; but it is by no means true that the extent to which particular persons use the service is the measure of the contributions they make to the national revenues. Even if all taxation were direct, and were, in fact as well as theory, levied proportionately upon property or income without exemptions of any description, it would be certain that all taxpayers would not use the services of public-service corporations in proportion to the amount of their property or income. When we consider that direct taxation is not necessarily

¹ Proceedings of the National Tax Association 1913, pp. 372-383.

proportional, either in theory or in actual operation, and that exemptions are both numerous and important, it becomes evident that the assumed identity of interest between consumers and taxpayers does not exist. With services local in scope the case is even stronger, since many taxpayers are likely to be non-residents, while the service may be used extensively by persons who are employed in one locality during the day but have their domicile elsewhere. What identity of interest in this matter can there be between the taxpayers of a large city and the army of suburbanites using the local transportation facilities?

"Since the interests of taxpayers and consumers are not identical, it follows that exemption of public-service corporations from taxation confers a special benefit upon consumers at the expense of taxpayers; and by a parity of reasoning it follows that the imposition of special taxes upon such companies relieves the taxpayers at the expense of the consumers. In exceptional cases special considerations may justify the grant of what is in effect a bounty to consumers, or justify the imposition of special taxes upon them; the rule of equality is not an absolute one which admits of no exception. But your committee holds that, as a general proposition, this second theory is inconsistent with the principle of equality in taxation, and for this reason we are compelled to reject it."

There remains the third theory, that the taxation of public-service corporations should be governed by the general rule of equality, which should be the controlling principle in governmental affairs. By equality is not meant absolute uniformity of treatment irrespective of all differences in the nature or condition of the objects upon which taxation is imposed. Differences in the form and method of taxation are perfectly consistent with the principle of equality provided they are justified by the circumstances of the case and result in a substantial equality of burden. Under normal conditions public-service corporations should be taxed neither more nor less than other classes of business concerns. If they are taxed more, consumers are burdened for the benefit of the taxpayers who would otherwise have to contribute the amount of revenue raised by special taxation of public utilities; if they are taxed less, then the consumers receive a subsidy which must be made up by additional charges exacted from taxpayers. This theory has received very general approval in recent years and may safely be accepted as our point of departure in the present case.

But this theory of equal taxation for public-service corporations, like any other general theory of taxation, has its necessary qualifications. A great financial emergency would justify a government in employing such corporations as agencies for collecting heavy emergency taxes from those who use their services. And, upon the other hand, exceptional circumstances may justify a reduction or total abolition of taxes upon particular companies or particular classes of public-service corporations. To secure the construction of a new railroad, exemption from taxation for a period of years may be properly offered as an inducement to a company willing to construct a road that is not likely to prove immediately profitable. In general, it may be said that whenever special circumstances exist which justify the Government's levying special taxes upon consumers or offering a bounty for some necessary public service, it is possible to justify a departure from the general principle of equal taxation.

The application of this theory of equal taxation to the case of the electric railways gives the following result: Under ordinary conditions the property and business of such companies should be taxed like other property or business. Nothing but fiscal emergency can justify the imposition of special taxation and nothing but an emergency seriously impairing the earning powers of such railways can justify either a direct or an indirect subsidy. The only practical difficulty in applying the principle arises from the fact that the occupation of the street by railway companies seems to occasion some extra expense for upkeep which the companies should fairly be called upon to meet. This extra expense is difficult, and perhaps impossible, to estimate with even approximate accuracy. It seems to justify in normal times the payment of an extra contribution by such companies, but it has sometimes been made an excuse for imposing special taxes which considerably or even greatly exceed the figure which would be justified.

Under the Federal income and excess profits taxes there has been no discrimination against electric railways, and if times were normal there would be no ground of complaint. The taxes levied by the State and local governments upon the property of such railways are in principle perfectly justified and give no occasion for complaint except in cases where valuations have been placed at a higher proportion of the true value than is generally applied to the property of

individual taxpayers. But the numerous additional taxes imposed upon franchises, earnings, and capital stock have frequently resulted in the imposition of a total amount of taxation considerably exceeding that which could be justified under the principle of equality. The same is true of the payments, contractual or other, which have been required as a condition of laying tracks in the streets. In 1917 electric railways of the United States, in addition to all taxes, which were undoubtedly very heavy, paid \$17,522,000 in other contributions, a sum which undoubtedly exceeded the amount which they would have had to pay if the theory of equal taxation had been followed.

4. THE MEASURES WHICH OUGHT TO BE ADOPTED TO RELIEVE ELECTRIC RAILWAYS IN THE PRESENT CRISIS.

The financial crisis which at present confronts the electric railways is so evident and so urgent that argument is not needed to demonstrate that, along with other measures of relief, a substantial reduction should be made in the amount of taxes which they are required to pay. How far this reduction should go must depend in considerable degree upon the relief afforded in other directions. The following suggestions are offered for the consideration of the commission:

A. The special contributions now required for the use of the streets ought immediately to be reduced to an amount that will no more than cover the extra cost of maintenance occasioned by the presence of car tracks. These contributions may have been, and probably were, justified before the days of effective regulation of public utilities, but they have no logical place in our present scheme of public regulation, except in so far as they do not exceed the extra cost of maintenance. Instead of being a means of securing for the public treasury a part of the excessive profits of unregulated monopolies, they have become a special tax on electric-railway transportation and are inconsistent with the principle of equal taxation.

B. The other special taxes levied by State and local governments in excess of those imposed on ordinary business enterprises ought also to be reduced or abolished, as the case may require. Like the special contributions for the use of streets, these taxes may have been justified formerly, but to-day they are inconsistent with the principle which should control the taxation of public-service corporations in ordinary times. In an emergency like the present, they are utterly indefensible.

C. Relief from the ordinary taxes imposed upon property can be justified only upon the ground of extreme emergency, and such an emergency can not be held to exist until the companies have been relieved of taxes that violate the principle of equality and have also been permitted to increase their rates of fare as far as may be expedient and practicable.

D. If other measures fail to give adequate relief and it seems necessary to relieve the electric railways from the property tax, the best procedure would probably be to exempt them from taxation on their property for a limited term of years, and then to impose a tax upon their net income. Such a measure is preferable in every way to total exemption since it maintains the theory that public-service corporations ought to be taxed; it will afford much relief in extreme cases; and it will insure some contribution to the public treasury as soon as the industry begins to see better days.

E. If the Federal Government is to recommend measures of relief, which the States are expected to adopt, it would obviously be appropriate for it to lead the way by relieving electric railways, at least for a limited term of years, from some of the Federal taxation that is now imposed upon them.

Commissioner SWEET. I was very much interested, Prof. Bullock, in what you have said to us about taxation, and in one way I think perhaps the ground has been fully covered, but there are one or two little points I would like to ask some questions on.

With regard to the taxation of street-railroad companies or the remission of it as a means of granting relief, do you not think it would come too slowly now for the kind of relief that the companies need, too slowly to be effectual?

Mr. BULLOCK. Well, it would be slower than some other things, no doubt. If your commission can work out a solution without remis-

sion of ordinary equal property taxation, you ought to do so. But in so far as State and local taxation exceeds the figure that would be consistent with equal taxation of the street-railway industry, abolition of the extra burdens ought to be recommended. You have to ask the street-car rider to do enough in the way of increased rates without asking him to contribute now this special transportation tax.

Commissioner SWEET. If I get your idea correctly, it is that in normal times and under normal conditions the properties of street-railroad companies ought to be taxed on substantially the same basis as other property in the community?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. No more and no less?

Mr. BULLOCK. No more and no less.

Commissioner SWEET. But that in times such as we are passing through now, and taking perhaps as one of the strongest examples the situation in Massachusetts, the situation is very critical. If what you said with regard to the risk of an automobile in the immediate vicinity of a track is correct—

Mr. BULLOCK. That is something that occurred to a car that I was riding in Sunday.

Commissioner SWEET. It did occur? Well, then, it is not an impossible case, surely. What I was going to say was if there was even any remote justification for your remark, then there is involved the question of public safety as to the riders upon these interurban roads; is there not?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. There is also involved, as you have practically stated, the question of the existence of some of these roads, which are not only great conveniences to the public but in many cases necessities, are they not, for the conduct of business and moving from one place to another place? Now that is very far from normal, is it not—what we regard as normal and hope to be normal in this country; that condition has not prevailed before and we hope never will again; is not that true?

Mr. BULLOCK. It is so far from normal that the industry appears to face ruin.

Mr. WARREN. What?

Mr. BULLOCK. It faces ruin; that is, the tracks are coming up, as I see it.

Commissioner SWEET. Taking that into account and looking at the situation squarely as it is, do you think there would be any impropriety, anything wrong or unreasonable, in the total remission of taxes for a limited period?

Mr. BULLOCK. I do not. I think it will come to that in many cases, or else it will be made up in some other way. We may go through the form of levying taxes and then make up a deficit. That is what we are doing in Massachusetts.

Commissioner SWEET. By levying more?

Mr. BULLOCK. Yes.

Commissioner SWEET. That would simply—

Mr. BULLOCK. It is whipping the devil around the stump.

Commissioner SWEET. Yes; in a sense practicing a species of deception upon the public.

Mr. BULLOCK. Undoubtedly. What is involved is giving a subsidy to an industry that faces ruin.

Commissioner SWEET. In the matter of taxation, whether upon an equal basis or upon the unfair basis that your figures would indicate has prevailed in many cases, the public has come to look upon the taxation of these companies as a sort of public asset, something the public in the past has been entitled to, and to give them up would require a good deal of argument and discussion—would it not—and that would be the more difficult as you get lower down in the community with regard to intelligence; would it not?

Mr. BULLOCK. Yes; and with regard to the seriousness of the burden. As I pointed out, for the Federal Government to give up the income tax is a slight thing, but for some little locality to give up some local charge may be comparatively a big thing.

Commissioner SWEET. Exactly. People would be more likely to object the nearer home it would come to them.

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. Then under the circumstances do you not think it would be unwise for this commission to attempt to help the situation in that way at the present time? I mean as a matter of immediate and temporary relief.

Mr. BULLOCK. I think that undoubtedly the adjustment of all these inequalities in taxation will take time. Where the situation is bad enough, however, the adjustment might be quickly reached and a recommendation from the commission would be helpful. Moreover, a recommendation of higher rates to be paid by car riders would have more force if it were accompanied with a recommendation that unequal charges be done away with. Whether your commission went on the theory that the time had not come to take off ordinary taxes and recommended that ordinary property taxes be left, but that taxes in excess of what ordinary property pays should be remitted and other charges cut down, such a recommendation would help very much a recommendation for higher rates.

The street-car rider will object, and justly, to higher rates that enable the continuance of taxes which under a scheme of public regulation amounts to a special tax on the transportation industry and which he pays for the benefit of property owners. It is hard to raise the fares. A street-car fare is not like your gas bill that you have once a month; you have your bill presented to you twice a day, six or seven days in the week, and the increase comes to you, the fact of the increase is very obvious, it is rubbed into the street-car riders twice every day. And a recommendation would come with greater weight, it seems to me, if it were accompanied with a very strong recommendation for the abolition of unequal taxes.

Commissioner SWEET. It would seem under present conditions as if the general public ought to accept a recommendation of that kind without very much dispute and controversy; would it not?

Mr. BULLOCK. They certainly ought.

Commissioner SWEET. What has been the attitude of the newspapers in Massachusetts since the trouble has arisen with regard to the street railroads?

Mr. BULLOCK. My newspaper reading is limited on account of poor eyesight. I read two or three papers in a summary fashion.

Now the newspapers last year generally were favorable to the passage of laws putting into application the principle of service at cost. At the present time when the trustees that are operating the Boston Elevated and the Bay State Street Railway, which is now the Eastern Massachusetts, undertook to raise fares and make readjustments which the car riders complained of, I should say that there was a tendency of the newspapers to favor the car rider and to tend on the whole to make comments that caused discontent over the increase in fare. However, my observation is limited. Mr. Warren has followed that probably more than I have.

Mr. WARREN. I have not followed it very closely, but I should think that was a correct statement.

Commissioner SWEET. Have you given personal consideration to this plan of service at cost?

Mr. BULLOCK. I gave considerable attention to it last year. It was much discussed.

Commissioner SWEET. Have you been here and heard the discussions and explanations concerning Cleveland and Cincinnati and Dallas?

Mr. BULLOCK. I have not.

Commissioner SWEET. You have not?

Mr. BULLOCK. I have not been here. It had many advantages as a means of educating public sentiment on this matter. It was a plan well calculated to lead to legislation in our State that was fair to the street railway. But the continuance of high operating expenses and the necessity of putting the ordinary fare up to 10 cents has been producing some unrest.

Commissioner SWEET. Making the plan unpopular somewhat?

Mr. BULLOCK. I do not know. I think perhaps the people have forgotten about the plan of service at cost and the only thing is the 10-cent fare. That is unpopular in Boston at the present moment.

Commissioner MEEKER. Well, the people certainly do not think they can get service at less than cost, do they, in Massachusetts?

Mr. BULLOCK. I do not know what they think, but they object to paying the increase. Whether they think about the cost I do not know.

Commissioner MEEKER. Would you advocate keeping the fare at a lower level and making up the deficit out of general taxation?

Mr. BULLOCK. I would advocate the highest charge for the service consistent with revenue. I would have the rider pay the full cost as far as it is practicable to make him do so, but at the same time I would remove unequal tax burdens so as not to have him pay more than the cost. Your question simply related to public sentiment.

Now I am a little at a loss to judge just what the public sentiment in Massachusetts at the present moment is. I should say the plan of service at cost was not unpopular but I guess it has been forgotten, has it not, Mr. Warren?

Mr. WARREN. I think largely the interest centers in the fare.

Mr. BULLOCK. I think at the present moment the interest largely centers in the fare.

Commissioner SWEET. As a national problem the solution of it depends very largely upon public sentiment; does it not?

Mr. BULLOCK. It does. Now sentiment in our State I should say worked admirably as a means of molding public sentiment last year.

Commissioner SWEET. Is it not likely to be so all over the country?

Mr. BULLOCK. Yes.

Mr. WARREN. As Prof. Bullock has referred to me, I should say the amount of dissatisfaction with the 10-cent fare in Boston is negligible compared to what it would have been had the company been operating as it did up to a year ago. The public would have thought it was being robbed.

Mr. BULLOCK. I think probably there will be a change there in Boston. I guess that when the fare was 8 cents and before it was raised to 10 a great many newspaper readers paid 8 cents for their ticket and spent 2 cents for a newspaper and a good many people now spend 10 cents for their ticket and do not pay 2 cents for the newspaper, and the newspapers are unhappy.

Commissioner SWEET. Among the various remedies which have been suggested and those that have been tried, has any come to your knowledge or have you thought of any that you think would give better results than the service-at-cost plan?

Mr. BULLOCK. I have not. I do not know any fairer means of presenting to the public, or any more expedient and diplomatic and straightforward means of presenting to the public, the idea that they have got to pay for the cost of the service and at the same time are going to be protected against undue exactions than that.

Commissioner SWEET. And, of course, you would include among your costs a proper return upon the invested capital?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. And a sufficient return and with sufficient certainty to induce new capital to come in?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. Do you regard that as essential to the continued prosperity of an industry of this kind?

Mr. BULLOCK. Certainly. Of course the industry needs large amounts of capital. It is in a run-down condition.

Commissioner SWEET. For safety or extensions—

Mr. BULLOCK. First for safety and then doubtless for extensions and improvements.

Commissioner SWEET. Upkeep of the track and rolling stock would also be regarded as an expense that must be met under this plan?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. Do you see any economic flaw or defect in the system?

Mr. BULLOCK. I have not seen any. It seems to present the matter in a reasonable and fair way to the public and to offer a guaranty against excessive charges if the plan is adopted.

Commissioner SWEET. What you have said to us about taxation has brought to my mind more clearly than perhaps ever before what seems to me to be a fact; and that is that the whole subject of taxation involves two propositions: One, getting enough revenue to carry on the Government in some way; and the other—and this is the point that has specially impressed itself upon my mind—the adjustment fairly among different elements in the community, and that perhaps involves the most difficulties, does it not?

Mr. BULLOCK. It is a very difficult problem.

Commissioner SWEET. Now, then, on the old plan based upon the idea that these companies were making large profits and might be taxed heavily—more heavily than the private owners of property and more than the ownership of their more direct properties would justify—if I understand you right, that idea is now absolutely obsolete—it is a thing of the past and ought not in any degree be applied as a principle of taxation to these companies. Is that correct?

Mr. BULLOCK. I think so. We have got to wholly readjust our ideas. That is a difficult thing for us to do, but we must do it.

Commissioner SWEET. In other words, instead of fowls to be plucked they are fowls to be fed, or at least, if we are to have the conveniences of street railroads, they must be treated with the utmost fairness?

Mr. BULLOCK. And where under former conditions you were taxing what used to be called monopoly profits, with a regulated industry you are taxing the rider. That is a change that has come about.

Commissioner SWEET. The paving tax when analyzed under present conditions falls entirely upon the riders who, as you have stated, are only one part of the community, and to that extent, there is a flaw in the system as between one group and another in the community. In other words, as I understand it, according to your idea at the present time at least, it is not a proper or just apportionment of the burdens to the various parts of the community; is that correct?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. Then for that reason as well as the fact that it is putting a very heavy burden upon corporations which are now seeking at least to be a benefit to the general community and are needed by the general community, instead of helping them, it is putting a burden upon them and in addition to that, it is inequitable as between the various parts of the community outside of the corporation. Is that true?

Mr. BULLOCK. Yes.

Commissioner SWEET. And would the same thing apply to bridge tolls and street cleaning?

Mr. BULLOCK. I think the same thing applies to every kind of a charge made upon a public-service corporation in excess of a payment for what they actually get or what damage they actually do. And if I may suggest it, since you brought up the matter of service at cost, it would seem to be logical and an essential part of that plan that a service-at-cost scheme should be so contrived as to determine accurately the cost, and that can not be done if these excessive public charges and contributions are exacted. You are not giving service at cost; you are giving service at more than cost.

Commissioner SWEET. Of course, if those burdens are to be continued under the service-at-cost plan, they would be figured as a part of the expense?

Mr. BULLOCK. They would.

Commissioner SWEET. And would have to be paid for by the riding public?

Mr. BULLOCK. Yes.

Commissioner SWEET. But as you say, the nomenclature would be incorrect, if you call it a service at cost when strictly speaking it would not be at cost. Have you had your attention called to the one-man car?

Mr. BULLOCK. Yes.

Commissioner SWEET. Have they been tried in Massachusetts?

Mr. BULLOCK. I believe they have been coming in within the last year or so. Formerly they were not permitted.

Commissioner SWEET. Not permitted?

Mr. BULLOCK. Not permitted. Is not that correct, Mr. Warren?

Mr. WARREN. Yes.

Mr. BULLOCK. The commission for a long time did not think they were safe and would not permit them.

Commissioner SWEET. Are they being used now?

Mr. BULLOCK. To some extent, but not extensively, so far as I know. It costs money to buy them and money is scarce.

Commissioner SWEET. They have not the money?

Mr. WARREN. Several companies want to try them, but they can not get the money to buy the cars.

Commissioner SWEET. As an economic proposition, Prof. Bullock, do you think there is a place for them in the general régime of the street-car industry?

Mr. BULLOCK. I should think on many car lines in Massachusetts there was a good place for the one-man car.

Commissioner SWEET. That it would give reasonable service and satisfaction to the public and at the same time be operated economically?

Mr. BULLOCK. I should think so.

Commissioner SWEET. So wherever such conditions exist under the present emergency, don't you think it would be reasonable to recommend that they should be used?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. Do you think of any other economies or any economies further than those mentioned that might reasonably be recommended?

Mr. BULLOCK. I do not. I am not particularly well informed about the street-railroad industry. I know about it just what a layman would know, and if the industry were one of expanding revenues that could command plenty of capital, I have no doubt economies could be effected by extensive reconstruction programs; but capital can not be had under present conditions.

Commissioner SWEET. That is to say, the poverty of these companies has brought about uneconomical conditions?

Mr. BULLOCK. It has absolutely forced uneconomical conditions.

Commissioner SWEET. For which the companies are not really responsible?

Mr. BULLOCK. Undoubtedly.

Commissioner SWEET. That is all.

Commissioner MEEKER. I'm interested in the 10-cent fare in Boston. I gathered from what you say that the 10-cent fare is insufficient, or at least it has not furnished a fair return upon investment in addition to the cost of conducting the street-railway transportation?

Mr. BULLOCK. In Boston it has been in operation but a very short time, and there has been a strike and we do not yet know the result

and nobody can do anything but guess. Now my guess is that the 10-cent fare will not give the Elevated the revenue that it will need to have, and that there will be a deficit which the city of Boston and other cities served by it will have to make up. But that is a guess and it is too early to determine. I hope that the guess will turn out to be wrong.

Mr. WARREN. It would have met it before the last increase in wages, would it not, probably? Did you see the cost given in the papers at 9.3 cents per passenger under the old wage scale before the strike?

Mr. BULLOCK. In my answer I took into account this recent strike. Now, I think that strike has just about taken out of the company's treasury and handed over to the men the increase of fare: at any rate, the benefit of it to the company will not be sufficiently great, I should guess, to put the company in proper financial position.

Commissioner MEEKER. Have you compared the street-railway situation in Boston with the situation in other cities?

Mr. BULLOCK. Not extensively. I know something about conditions in New York, Chicago, and Cleveland.

Commissioner MEEKER. The president of the street-railway company in Cleveland testified yesterday that their 5-cent fare plus 1 cent for transfer was sufficient to enable them to operate on a service-at-cost plan and pay a yield on the investment, although the company was not entirely satisfied with the yield upon the investment. How do you account for the great difference in Cleveland as compared with Boston?

Mr. BULLOCK. We have a very extensive subway system in Boston. In the old days when money could be had for about 4 per cent, and when operating costs were low and gross revenues increasing, we built a very excellent and very expensive system of subways; so the Boston Elevated Railroad is under a charge for subways which makes the situation there utterly unlike the situation in Cleveland.

Mr. WARREN. I might bring out here, because it might answer your question in part, that the rental of those subways which were built by the city is charged as a part of the cost of the service; is it not, Prof. Bullock?

Mr. BULLOCK. It is.

Mr. WARREN. And includes a sufficient charge not only to pay the interest on the city debt incurred in building the subways, but sufficient in addition to amortize the entire capital cost of the subways over a given period of years. That is all included in the cost of service.

Commissioner MEEKER. Twenty-five years?

Mr. WARREN. I think it is either 40 or 50 years, but it makes a very substantial payment annually by the car riders, and it is in part being paid upon subways which are not yet completed.

Mr. BULLOCK. When I leave my house in Cambridge I get into a subway that carries me into the center of Boston in 8 minutes.

Mr. WARREN. That is 3 or 4 miles.

Mr. BULLOCK. And it is a very expensive service that we get. New York is the only city with any subway outlay like ours, and there, of course, their traffic is much larger than ours in proportion.

Commissioner MEEKER. We must be very careful in making generalizations not to make them too broad.

Mr. BULLOCK. Undoubtedly.

Commissioner MEEKER. And must take the different local conditions into account.

Mr. BULLOCK. Undoubtedly.

Commissioner MEEKER. I would like to get your opinion—first of all, your statement as to how the investment or capitalization was arrived at. Was it by a physical valuation or——

Mr. BULLOCK. You mean in Massachusetts?

Commissioner MEEKER. Yes, or——

Mr. BULLOCK. The commission with its engineers followed the construction and checked it up; and every application for an issue of stock was accompanied by statements of the actual expenditures, etc., so that the commission has approved not only the issue, but has checked up the amount of the issue.

Commissioner MEEKER. So that there is no question of an excessive valuation of property upon which a fair income is due to the investors?

Mr. BULLOCK. No.

Commissioner GADSDEN. Are you familiar with the resolution recently passed in the State of New Hampshire exempting street railways from all taxation in case the public-service commission certifies that they have an operating deficit?

Mr. BULLOCK. I have seen a newspaper statement about it, but I have no other knowledge.

Commissioner GADSDEN. That is in line with your suggestion.

Mr. BULLOCK. That is in line with the suggestion.

Mr. WARREN. What is the custom, Prof. Bullock, respecting taxation of municipally owned plants engaged in the utility business, if you know?

Mr. BULLOCK. In the United States?

Mr. WARREN. Yes.

Mr. BULLOCK. I think the practice is to tax them. Of course, there are some departures from that rule. In our own State where a city or town goes outside its limits and takes land for waterworks, then the land is taxed, and there are doubtless some other exceptions; but municipally owned plants in the United States, so far as I am aware, are generally untaxed.

Mr. WARREN. Presumably that would be the result if the municipalities or any other governmental agencies took over these street railways?

Mr. BULLOCK. Presumably it would.

Mr. WARREN. Is it not at least a debatable question whether if a service-at-cost plan or some other form of partnership between the corporation and the municipality were adopted, whether under those circumstances the property should be taxed?

Mr. BULLOCK. It is perhaps debatable. I believe that under normal conditions the property of municipal industries ought to be taxed.

Commissioner MEEKER. Municipally owned industries?

Mr. BULLOCK. Yes; and of course in England that is done. If the city municipalizes its gas works, it pays the national income tax. The exchequer does not lose thereby and the real estate is supposed to be taxed for local taxation like other things, exempting the property of public industries from taxation like other things. Ex-

empting the property of public industries from taxation can be carried only a certain distance without producing conditions which lead to a reversal of policy. In Europe the property of municipal and State industries is not uniformly taxed. In this country it sometimes is. Our Federal forest reserves, for instance, are not taxed, but a part of the revenue is given to the counties in which they are located.

Mr. WARREN. So that in the English system the car rider or gas consumer pays a proper proportion of tax?

Mr. BULLOCK. Pays a proper proportion of tax.

Mr. WARREN. Whether it is municipally or privately owned?

Mr. BULLOCK. Whether it is municipally or privately owned.

Mr. WARREN. And you see no distinction between the principle of taxation which ought to apply, whether the plant is publicly or privately owned?

Mr. BULLOCK. I do not. Under proper conditions the city—well, there is an absolute limit to the amount of property that you can withdraw from taxation. The Prussian railroads were taxed locally, and they had to be. They never would have been nationalized otherwise. If our Government takes over the railroads it has to have the consent to tax them, and the proper condition is one in which industries of this character if owned by the municipality have charged against them their due share of all taxes.

Commissioner MEEKER. May I interject a question here?

Mr. WARREN. Certainly.

Commissioner MEEKER. I intended to ask this before, but forgot it.

You spoke of the property tax being rescinded in favor of a net income tax for the time being. Would it not be better to adopt the taxation of net income as a permanent policy?

Mr. WARREN. On these utilities?

Commissioner MEEKER. Yes.

Mr. BULLOCK. I doubt if it would. At least, so far as all the real estate is concerned. Real estate can not be taxed on its net income for local purposes.

Commissioner MEEKER. But what real estate does the street-railway company own?

Mr. BULLOCK. Well, it has its power houses and barns and electric-railway rights of way which they own in a good many cases. The real-estate element with the electric railway is not as important an element as with steam railways, but still it is an element. I should say such real estate as they own should not be exempted from the property tax under any condition. Their other property, their cars and other things, might very well be exempted from taxation, and you might very well have an income tax on the railroads and then a real-estate tax on their real estate. Now, that solution might be a very good ultimate solution. To illustrate, in other—

Mr. WARREN. Under normal conditions?

Mr. BULLOCK. Yes.

Mr. WARREN. You are not proposing to modify what you said about the possible exemption in view of the peculiar conditions?

Mr. BULLOCK. My income-tax suggestion which I make on the last page of the brief has reference to an immediate measure of relief. To suspend the property tax for 5 or 10 years and impose a tax on the

net income would give a very large amount of relief, and it is fairly justified if the emergency is as great as I think it is in many cases.

Commissioner MEEKER. But you think it should not be adopted as a permanent policy—

Mr. BULLOCK. I think it should not be adopted as a permanent policy.

Commissioner MEEKER. Except as you have indicated, in a modified form?

Mr. BULLOCK. In a modified form.

(Witness excused.)

Mr. WARREN. Mr. Nash, will you resume the stand, please?

STATEMENT OF MR. L. R. NASH—Resumed.

Mr. WARREN. I have here Mr. Nash's printed article, and I thought it might be convenient, as he testified, if the members of the Commission had it to look at, as some questions might be answered in the article.

Commissioner SWEET. Yes.

(Mr. Warren thereupon handed copies of Mr. Nash's printed article to the members of the commission.)

Mr. WARREN. Mr. Nash, when your testimony was interrupted day before yesterday, you had just finished your outline, I think, of the general principles that, in your judgment, should govern the service-at-cost franchise. Is that correct?

Mr. NASH. That is correct; yes, sir.

Mr. WARREN. You had not, however, taken up the result of your study with the various service-at-cost plans which had actually been adopted and put in operation in this country and Canada, had you?

Mr. NASH. No.

Mr. WARREN. And since then you have—necessarily, because of not being put on the stand—heard the testimony here with respect to Dallas and the testimony with respect to Cincinnati and the testimony with respect to Cleveland?

Mr. NASH. I have.

Mr. WARREN. I think it would help the commission in its consideration of this service-at-cost plan if you would briefly compare the different plans of service at cost, pointing out the differences in effect in the different franchises.

Mr. NASH. This paper that has been handed the commission summarizes in an analytical and historical way the various franchises on this service-at-cost form that have been put into effect in the United States and Canada, with one exception. The city of Youngstown, Ohio, early this year, granted a franchise of that form. It did not differ radically from those which are summarized in this paper.

The testimony that was presented yesterday from these cities which Mr. Warren has mentioned simplifies the view that I need to make of the details of these different franchises to a material extent, and I think it would be unnecessary to go into any great detail of the features of these different franchises; so that I will review rather briefly what I consider the important features, and leave to the commission, through questions, to bring out such further details as they may wish.

I think one of the fundamental features, and one of the necessary features, of this form of franchise is the so-called barometer fund. It is through this barometer fund that the automatic feature has its effect. All of these service-at-cost franchises have this fund under one name or another. The amount has been testified to in the cases that came up yesterday. In most cases, that amount is fixed—fixed with the idea that the upper and lower limits will be far enough apart so that any ordinary variations in either revenues or cost of operation will not require frequent changes in the rate of fare, which would be confusing to the public. I think if changes ordinarily occur at intervals of six months, or even a year, the best results are in the end accomplished, and the fund should be large enough for that purpose. Rather than to have a fixed fund, I think it would be better—and that is embodied in one of the recent franchises—to have a fund varying with the size of the property. The Dallas franchise fixes the fund on a per cent of the capital value; so that, proportionately, as the property grows, the amount of this barometer fund and its upper and lower limits increase.

Mr. WARREN. How is that fund provided, Mr. Nash?

Mr. NASH. In different ways. In some cases, by the borrowing of money charged wholly to the capital account or property value. In other cases, part of it—and this is the case in Cincinnati, for example—a part of it is furnished by the company and included in its capital value, and the balance gradually accumulated through the surplus earnings from operation. This latter method has the advantage that a large sum of money is not necessarily borrowed at once on which the car-riders are required to pay the specified rate of return.

It is true that that fund is not kept as a fund in cash, but perhaps it is not needed, in the same way as a corporate surplus. It may be invested in additions to the property; but I think there are some advantages in building up at least a part of this barometer fund through surplus revenues. I think a very useful purpose is served by this automatic feature arising through the barometer fund, as is evidenced by the testimony which was presented yesterday and the day before by several witnesses.

It was brought out that in Cleveland, in Cincinnati, and other places possibly, the increases in fares which have been made under the service-at-cost franchises have occasioned comparatively little reduction in riding. In other cities where increases have been made through negotiations with the city, or through orders of public-service commissions, where a 6-cent rate has been put into effect, for example, involving a theoretical increase in revenue of 20 per cent, the actual increase in revenue has averaged not far from 10 per cent. In other words, there has been a material loss in traffic. I think that loss arises almost entirely, not because the car riders can not afford to pay the additional cent, but because of the agitation and resentment arising in connection with the negotiations for the increase. City councils, city officials, where an appeal is taken to a public-service commission for an increase of fare, always feel it incumbent upon them to protest the increase; and the public press and professional politicians take that opportunity to very loudly and at great length express their opinion of the public utility who would impose additional burdens upon the poor working people. The result is that there

is bound to be a large amount of popular attention to the subject and a lot of misunderstanding, and consequent resentment, without which, I feel quite sure—and the testimony before the commission has borne it out—that the reduction in riding would be comparatively small. In other words, the operation of the service-at-cost franchises tends to minimize the unfriendly public relations, and yield revenues from fare changes that should, under normal conditions, be yielded—the kind of increases in revenue that actually take place in private business where, as a matter of course, the charges for commodities have increased in these days as the cost of the commodities increased. . So that I think that that feature of the service-at-cost franchises is of very particular importance.

Another essential feature, a universal feature, of these franchises is supervision. It has a variety of forms. In the majority—I think I am safe in saying in the majority of cases—supervision is centered in a single individual selected by city officials, who represents them in the regulation of service, the examination of the accounts, studies all the needs of extensions of the facilities and other features which are involved in the franchise. In other cases, and usually in the larger cities, a board of city members has been substituted for the single supervisor. In Massachusetts, the Boston Elevated board of trustees, appointed by the governor, has five members. That is the largest number on a supervision board so far in effect.

Mr. WARREN. And the Bay State has the same number?

Mr. NASH. The Bay State has the same number as the Boston Elevated.

The CHAIRMAN. And is the expense of that supervision generally borne by the utility?

Mr. NASH. Generally.

The CHAIRMAN. In all cases?

Mr. NASH. It is my recollection that there is one case—I have forgotten what it is for the moment—in which the city pays the expense of this supervisor's office, and I think very properly it is a part of the cost of car service.

The consolidated franchise, so-called, which was drafted in Chicago to cover the combined elevated service and the proposed rapid-transit lines, but which was rejected by referendum last fall, provided for a board of trustees of nine members. I think that is an unnecessarily large number. It is apt to be unwieldy unless the duties of the board are, in effect, lodged in the hands of a comparatively small executive committee.

I have said in this paper that I thought it would be desirable that the supervisor should be a man preferably of technical education or else a man of broad business experience who should be appointed by the State public-service commission, and perhaps act as the agent of the commission, instead of supervision under the service-at-cost franchise being independent of the State commission. This plan of State commission appointment would have this advantage, if the service-at-cost plan becomes widely extended—

Mr. WARREN. That is the Massachusetts general-statute plan, is it not, which was adopted last year?

Mr. NASH. I so understand.

While that plan has not come into general use at all as yet, because of the unfavorable financial conditions, this general Massachusetts

plan provides that for each service-at-cost company, or at least a group of nearby companies, the State board shall appoint a supervisor who has special charge as the agent of the commission of these companies.

Mr. WARREN. Those unfavorable financial conditions are due to the fact that the Massachusetts act requires the barometer fund and also a rehabilitation fund, I think.

Mr. NASH. To be set up in cash in advance.

Mr. WARREN. And raised through the issue of securities?

Mr. NASH. Yes; that is the real trouble.

Mr. WARREN. The companies have not found themselves able to secure the credit necessary to issue securities; is not that true?

Mr. NASH. That is true.

The effect in any State of a large number of service-at-cost franchises under such a plan of supervision would be that the State commission would be able to train a body of supervisors, more or less in the way that our diplomatic corps is, or ought to be, trained—taking young men and educating them in the office of the commission, sending them out as supervisors of the smaller properties, and gradually transferring them to larger and larger positions of responsibility, with their increase in experience; so that in the end there would be developed a body of specially trained supervisors to have charge of this class of public service.

The commission has heard some testimony on the question of the value or rate base to be adopted for use in cases of this kind. I think it is sufficient to say that a franchise of this kind should have a fair value expressed in more or less the ways the public-utilities-service commissions have determined fair value in specific rate cases.

I think I testified in my opening testimony that, in my opinion, the actual investment, honestly and prudently made, to use the words of the Massachusetts commission, is the most logical basis for determining the return to investors. That, in these franchises, is also the basis of the city purchase, which is a feature of nearly all of them with, in most cases, the addition of a small percentage to cover costs of liquidation and the procuring of money, where not otherwise provided for in the plan.

The values actually fixed in these various franchises show quite a wide range with relation, as figured out in the per mile of traffic, and in relation to capitalization, perhaps. In practically all cases, capitalization has been entirely ignored; as it is in the conventional handling of rate cases by the public-service commissions.

In the majority of cases, I think the valuation has approximated at least the actual investment of the properties, where it has been possible to determine that. In a few cases, a depreciated value has been accepted, but these have been cases where the franchises have expired or, for other reasons, the railways were not in a position to strenuously contest the values which they thought were too low.

Under the heading of the cost of service, from which the rates of fare are determined, the testimony of various witnesses has brought out the elements of cost which are universally recognized, but some divergence of method of determining this cost has been developed.

For example, in Cleveland, the company has been allowed for its cost of operation a certain number of cents per car-mile; an amount fixed in the franchise but subject to readjustment by ordinance of

the city council and, in fact, actually adjusted a considerable number of times, because of the increased cost of operation.

Mr. Culkins testified that in Cincinnati they thought it better to prepare an annual budget, in dollars, of the anticipated cost of operation, the expected conditions of service all being taken into consideration as carefully as possible. I think that method is better, and it involves a desirable increased flexibility. City councils are sometimes disposed to look at revisions of franchise terms fairly, and at other times they are influenced by political considerations; so that there is a tendency, and I think a definite tendency, to postpone the needed adjustments in the operating allowance where it is fixed.

In the Massachusetts acts and in a number of other recent ones, there has been no attempt at all made to fix a definite standard of operating costs for efficiency, as far as expense, or even as far as maintenance and replacements are concerned, the responsibility being placed wholly on the shoulders of the supervisor or the board of control to keep in close touch with operating costs that there will be no chance of extravagance.

I think the budget system is a desirable one. It is desirable in any form of corporate business, and particularly so under a service-at-cost franchise, as it gives the public, so far as the public is interested, a forecast of what is liable to happen. If this budget, for instance, had been prepared in these service-at-cost cities prior to the beginning of 1919, it would very probably have shown an anticipated increase in the cost of materials and an increase in pay rolls and would have shown the inevitable necessity of some fare increases, and where the public is forewarned of increases of that kind, the disturbance attending the actual increases when they go into effect is minimized.

With respect to maintenance and replacement, again, in several of the franchises there has been an attempt to fix the amount within which the entire upkeep of the property should be taken care of in cents per car-mile. That is true in Cleveland. That is fixed by ordinance in Cleveland, and has been revised several times. In several cases, it is fixed in the form of an annual budget. This allowance is intended not only for the current routine maintenance and repairs, but also for the replacements or larger items of the property. In other words, it is supposed to take care of the permanent upkeep, and supplementing the annual allowance or expenditures, it is expected that the company will accumulate a reserve for future requirements.

The amount of this reserve—and I think this is rather significant—is not definitely fixed in most of these service-at-cost franchises. In the Dallas franchise, it has been. That is the only one, as I recall at the moment, in which there has been a definite attempt to define what provision should be made for obsolescence, supersession, and a future provision for large replacements of the property analyzed.

Commissioner MEEKER. Has that definite fund been indicated in dollars, or is it in a percentage of the capital?

Mr. NASH. A percentage of the capital value.

Commissioner MEEKER. Do you know what percentage it is?

Mr. NASH. The Dallas percentage, if I recall rightly—

Mr. WARREN. Mr. Head says it is 8.

Mr. NASH. It is 8.

Mr. WARREN. Eighteen.

Mr. NASH. Not 18 per cent of the capital value. That is the maximum of 18 per cent of the gross annual accrual for the reserve. The per cent of capital value, if I remember rightly, is 8. It is very much less; and the point I would like to bring out about that is this—that the provision in Dallas, which they marked out with a great deal of care, is very much less than the theoretical requirements of, for instance, the Interstate Commerce Commission and a number of State commissions. They are getting more and more into the habit of requiring the utilities to set aside each year an amount which is estimated as the current loss in service value of the property elements. In other words, if an element of property has an estimated useful life of 20 years, each year we should set aside this for its ultimate replacement one-twentieth of its original cost, less whatever salvage value there may be.

The effect of the method of accruing for replacements, depreciation, so-called, which I have referred to as being produced by the Interstate Commerce Commission and some of the State commissions in their accounting requirements, leads to the accumulation of a large reserve—in some cases, a very large reserve—which is never used. This reserve accumulation comes from the car riders in the case of the railway company. It is money taken from the car rider, and usually this reserve is invested in the property. That is not in these days a very profitable investment for the car rider, and if he had his option, he would prefer to invest his money somewhere else. Of course, normally and theoretically, this investment reserve earns a return. It is unnecessary to go out and borrow as much outside capital; so that the fixed charges against our operation are less than otherwise would be the case; but so long as this reserve is in excess of any possible actual requirements—and I am familiar with calculations which show that even on a sinking fund basis, this reserve might amount to as much as 40 per cent of the investment in the property—to the extent that that is excessive, the car riders pay a higher rate of fare than otherwise would be necessary, and I think in any service-at-cost program any excess accumulation of that kind should be avoided.

I am heartily in favor of full provision for any actual requirements, but I doubt very much whether provision should be made for so-called obsolescence and supersession; in other words, whether the car riders of to-day, using a certain type of equipment, should furnish the means of retiring that equipment, so that subsequent car riders may have the advantages of more efficient, safer, and otherwise more attractive service. For example, we are now introducing in very large numbers about the country—quite large numbers—the one-man car. It is a more efficient piece of equipment than the older style of car. The cost of operation is less. The older and heavier equipment is, in effect, abandoned. It probably will be for some time used for extra heavy service, but, in the end, it is a supersession, and there is a reduction in future costs. There is a more frequent service for the car rider, and I think the user of the one-man car is the man who ought to, in part, at least, pay for the amortization of the remaining life of the equipment which is superseded.

In short, in the service-at-cost franchise, the car rider should pay as a part of the cost enough to accumulate reserves for existing re-

newals but not for theoretical depreciation or for unforeseen obsolescence of equipment.

Mr. WARREN. Your feeling is that the substitution of the new form of equipment and apparatus before the normal life of the superseded item has been reached is a proper charge for the future car rider, rather than to be taken out of the present car rider?

Mr. NASH. Largely so; yes.

Mr. WARREN. What features would you introduce, Mr. Nash, into the Cincinnati franchise, or what differences would you make in it from those which were actually adopted, to make it, in your opinion, an ideal franchise?

Mr. NASH. There is one feature of the Cincinnati franchise which I approve of theoretically. Practically, it does not work out, and I doubt if it will ever work. That is the incentive to the management and investors in that property to operate it efficiently.

This franchise provides that for a 5-cent rate of fare the investors get this return specified in the franchise for various classes of securities, plus 45 per cent, I think it is, of any surplus which may be earned. If the fare is in excess of 6 cents, the traction company gets nothing.

Now, back in normal times, that provision might have yielded a material amount of supplemental return to the traction company, but I think there is a very small chance, in the near future at least, for fares to get down to a point where the company will get any share in the surplus at all. So that this incentive intended to be embodied in this franchise is not, in fact, a real incentive. It is a theoretical one.

Commissioner SWEET. Your objection is rather to the figures that they have agreed upon than the principles?

Mr. NASH. The criticism is of the figures rather than the principles. The principle, I think, is thoroughly right, except that it is not clear to me how it can be applied to rates of fare.

That same provision exists in the Dallas franchise, as Mr. Head explained last night. If rates of fare were stable—that is, if we could look forward to more or less uniform costs of living under even the present scale, if we may assume that we have stepped from one plane of living to another, which is 50 per cent or more higher, and are going to stay there, then that statute should be revised by raising the fare a cent, or a cent and a half or 2 cents. Two cents, really, should be the amount of increase, I think. Then there would be a real incentive to the company for an increase in efficiency. There would be an incentive to the investors to put additional money in the property. The average investor likes to see something, I think, outside of a certain fixed rate of return. That is the reason why he likes to buy a security at a slight discount, rather than to pay par for it, because at maturity he gets something more than he originally contributed.

Mr. WARREN. Is there any method that you can suggest for furnishing an incentive which you think would be better or more workable than either that of the Cincinnati franchise or that described by Mr. Head last night, in the Dallas franchise?

Mr. NASH. I do not know of any method that could be definitely adopted to the radically changing conditions with which we are confronted.

Mr. WARREN. But in normal conditions, what do you think about either of them?

Mr. NASH. I think either of those plans, the Cincinnati or the Dallas plan—they are somewhat similar—is useful.

I should like also a provision in the Montreal franchise, that if the company lives within a predetermined budget—and its budget is fixed on a car-mile basis similar to Cleveland, and is determined each year in advance and not definitely fixed—that if they live within that, or do not exceed it by more than 2.5 per cent, I think is the margin allowed, the company is allowed a so-called operating profit of, I think, one-eighth of 1 per cent on the capital value. That is a small amount, so far as percentages go, but it should serve as an incentive to keep the expenses within all reasonable limits; but the just working of an allowance of that kind requires absolute unvarying fairness on the part of the commission that fixes the allowance in advance with a very clear forecast of what is going to happen. Otherwise, it is difficult to definitely and successfully apply it. If the commissioner fixes his allowance one year—if he fixes it just as close as he can, and the company comes a little bit under, the tendency in the succeeding year, if the commissioner does not want the company to earn its operating allowance, is to crowd the allowance down; so that in a series of years there is an attempt to crowd the allowance down to the lowest possible limit, and the incentive is lost. If, on the other hand, the allowance is made liberal, so that the company can easily live within it, somebody gets up and says the commission and the company are in collusion and there is an operating profit there that really does not belong to the company and was not really earned.

That is the difficulty in applying that sort of an incentive, but the principle is theoretically good.

Mr. WARREN. The principle of an incentive is good?

Mr. NASH. The principle. I think it is better than the London sliding-scale principle, because of the probability of continued changes in the basic costs.

Commissioner MEEKER. Have you described the London sliding scale in your pamphlet?

Mr. NASH. I have described its application in the cases of Dallas and Cincinnati in the pamphlet, and I have described the Montreal provision also on the operating profit here.

Commissioner MEEKER. Is the Dallas plan the London sliding scale?

Mr. NASH. Practically so, but not exactly. It is based on the rate of fare. The London sliding scale, I think, is correctly applied in the case of the Boston Gas Co.; that when the price for gas, for instance, is a certain amount, a certain return in per cent is allowed. If your rate for gas is reduced by the company 5 per cent, it may add 1 per cent to its allowed rate of return.

Commissioner MEEKER. If the price of gas goes up—

Mr. NASH. The rate of return goes down.

Mr. WARREN. The great difficulty with that is in establishing a starting point; is it not, Mr. Nash?

Mr. NASH. That is a very serious difficulty.

Mr. WARREN. In Dallas, the starting point for its application is the 5-cent fare.

Mr. NASH. And even if that starting point is accurately determined, the changes in conditions that we have gone through destroy the effectiveness of it.

Mr. WARREN. It would be almost impossible to-day to adopt the starting point which you could consider normal in the street-railway business; would it not?

Mr. NASH. I think it is quite impossible.

Mr. WARREN. What rate of fare could be said to be a proper rate of fare by which to measure your London sliding scale?

Mr. NASH. I do not think we could forecast at all what the normal rate should be, established for the future, for any term of years.

Mr. WARREN. Do you think, under the existing uncertainties of operating expenses, a semiannual budget would be preferable to an annual budget, as provided for in the Cincinnati franchise?

Mr. NASH. Under the authority provided, as is the case in the franchises, the company and the commissioner may agree upon revisions. That is, if there is any definite change in the operating conditions which make expenses necessarily higher, or possibly lower, a revision of the budget is permissible, and I think it should be made, as is done very commonly in general corporation practice, six months, or even quarterly, where conditions change at all radically.

Mr. WARREN. This service at cost involves a franchise, as every case of a street railway does, of course.

Mr. NASH. There is just feature of a grant conventionally—

Mr. WARREN. What would you say were the salient features of a service-at-cost franchise the essential features, distinguishing it from an ordinary franchise?

Mr. NASH. The essential difference is the assurance to the investor that, as far as any rate of fare can be put into effect which the patrons, the car riders, can afford to and are willing to pay, the investor will get a normal return upon his investment. In other words, the kind of a return that he would get if he put his money in an alternative commercial or industrial proposition.

That is not a guaranty. I think that distinction ought to be very clearly brought out, that it is not a guaranty in the ordinary franchise. In our Massachusetts cases—the Boston Elevated act, at least—there is a guaranty that the State treasury will make up the deficit, and the return to the investor is absolutely guaranteed; but it is expected that the deficit which the State makes up at one time will be paid at another time under more favorable conditions by the car riders; so that in the end the State will not lose anything, but there is no definite provision for that in the act.

Mr. WARREN. So that one essential feature and difference is the assurance to the investors, that so long as the business is capable of producing it, they will get a fixed normal return on their investment?

Mr. NASH. That is the real vital advantage of it.

Mr. WARREN. Is there any assurance to the car rider that he does not always enjoy under present franchises?

Mr. NASH. There is an assurance to the car rider that he can have any kind of service that he is willing to pay for.

Mr. WARREN. And is there not also an assurance to the car rider that he will not be called upon to pay this return on any more than a determined value of the property used in furnishing service?

Mr. NASH. Not when he does not pay any higher value, but he never pays more than the established normal rate of return on that established value.

Mr. WARREN. Oh, yes.

Mr. NASH. There is an assurance that the investor never gets any more out of the business than he could get if he put his money somewhere else, in competitive business, where their return is restricted by competition, as it is not, ordinarily, in the railway business.

Mr. WARREN. So that really those two features are very important: The determination of the value of the property used, and then permission to the company automatically to have its rates go up and down, to furnish a return upon that value?

Mr. NASH. Those are the fundamentally necessary features.

Mr. WARREN. Those are the two reciprocal benefits?

Mr. NASH. Yes.

Mr. WARREN. The investor says, "I won't require you to pay on money that is never invested"; and the car rider says, "You may get a proper return on whatever is invested."

Mr. NASH. Exactly.

Mr. WARREN. You said the other day, I think, in your opinion, that the term of the franchise should be indeterminate—a good-behavior franchise?

Mr. NASH. There are undoubted advantages in the indeterminate franchise. Unfortunately, there are laws in a good many States that make the granting of such franchises impossible. When that is the case the results can be, in a way, accomplished by franchises of this Cleveland form, which Mr. Stanley described, or, assuming that a 25-year term is the maximum that the authorities can grant, at the end of a 10-year period the municipality must either extend that franchise for 10 years more, starting anew again, in effect, with a full 25-year term, or relinquish its rights of control, and permit the railway to charge the maximum possible rate of fare authorized under the franchise, and to amortize its investment. That means, of course, a much higher cost of service to the car rider. The city is really forced to make the extension in order to keep the rates down to a consistency with current, normal costs; and if, at the end of every 10 years, in that way the franchise is renewed and it never comes nearer than 15 years of its expiration, the question of financing is very much simplified; but undoubtedly the indeterminate form is much better, because this 10-year agitation over terms and conditions of the franchise is entirely avoided, and also when the question of renewal comes up there is more or less popular discussion and agitation.

Commissioner MEEKER. Should not the indeterminate franchise be subjected to a review about every 10 years?

Mr. NASH. Certain features of it logically should be subject to review.

Mr. WARREN. But these essential features ought not to need review—the determination of the value and the assurance of a return?

Mr. NASH. Those should be fundamentally unchanged. They should be fixed.

Now, take the question of the rate of return, for instance. I do not think we can foresee indefinitely what rate of return the investor is able to earn in other business and what he is entitled to under a service-at-cost franchise; so that there might well be a provision for arbitration or readjustment of things of that kind that are subject to change with changing general conditions.

Commissioner MEEKER. Would you make these changing features subject to review at periodical intervals, say every 10 years, or whenever the emergency arises?

Mr. NASH. Preferably when a real emergency arises, if it is possible to define what one means by a "real emergency." That is always difficult.

Commissioner MEEKER. Could you describe such an emergency as you have just outlined?

Mr. NASH. I think it would be unquestionable that conditions which have arisen during the war should be an occasion for the revision of any established features of this kind.

For instance, Mr. Stanley has explained that while the Cleveland franchise provides for a 6 per cent return on the company's stock—and that that franchise was extended for 10 years, only a few months ago—the company found it necessary to come to the commission, saying that their investors are entitled to a 7 per cent return. They are doubtless claiming that 7 per cent to investors to-day commands less in purchasing power than 6 per cent did three or four years ago. That is undoubtedly true; but I think a revision applied to the question of the rate of return should or might properly be limited to the question of what differences have arisen between the time when the rate of return was originally established and the time of the arbitration, so that the question may not be too broad. If it is left too broad, the investor is likely to be frightened. If he knows that unless conditions change, he is going to be assured of a continued return on the basis on which he has made his investment, and that if conditions do change the rate of return will be affected—

Commissioner GADSDEN. Mr. Nash, don't you think that that will, in some measure, affect the securities of the investor? If an investor buys a security under any consideration of that kind, with the provision that the rate on these securities is subject to revision, don't you think that that is going to make money more expensive to get, under this plan?

Mr. NASH. There would be a tendency both ways.

Commissioner BEALL. You think normally it would go up, and not down?

Mr. NASH. If the investor foresaw that prices were going to continually rise, and that the rate of return that he could command in the future ought to be revised, he would look for a revision to give him an opportunity to get more than he started with.

Commissioner BEALL. Well, are not the chances all the other way?

Mr. NASH. It is pretty hard to tell how the average investor would look at the future, whether he thinks prices are going up or going down.

Commissioner BEALL. A banker would not undertake to raise money under those conditions. He could not do it, absolutely.

Commissioner GADSDEN. That is a gamble; that is not an investment.

Commission BEALL. Is not the protection to the public this: If the situation is such that the return ought to be fixed on the purchase provision, which, I suppose, you would recommend as a feature of every one of these service-at-cost franchises, it would put it in the power of the municipality or the State or other public agency to take the property over?

Mr. NASH. There is a still more definite provision than that in the Cleveland franchise, for instance, that the city, instead of exercising the right of purchase itself, could designate a new licensee, a new purchaser, although the company has a right to retain, the existing company has a right to retain the property, if it will accept a rate of return somewhat lower than that originally prescribed.

Commissioner BEALL. That would protect the public.

Mr. NASH. That would prevent the prescribed rate of return from being excessive.

Commissioner BEALL. Yes.

Mr. NASH. And that may be an adequate provision, so far as the city is concerned.

Commissioner BEALL. Now, the amount upon which the return should be allowed should not vary, except as additional amounts are added to the investment in the property?

Mr. NASH. I think not.

Commissioner BEALL. Having once been determined?

Mr. NASH. Of course, there is this to be said, that an investor today, if he gets a living out of his investment, must get more money in dollars than he got a number of years ago, and that must come either through a higher rate of return or from a higher valuation of the property which he has invested. I think the simpler way of giving him that higher income is through a change in the rate of return and not in his investment.

Commissioner BEALL. Yes.

Mr. NASH. The more stable an investment value is fixed the better.

Commissioner BEALL. If that amount is going to be varied up and down, there will be the same feeling of insecurity on the part of the investor; will there not?

Mr. NASH. I think there will be.

Commissioner BEALL. And if it was not determined, would you say that the investor would not prefer to invest?

Mr. NASH. Here is an illustration that came up in a hearing on this question before the chamber of commerce that may be of interest on this point:

It was testified to in Cleveland when the franchise came up for an extension last spring, that an incentive ought to be added to the fixed rate of return, so that the investor might under certain conditions get more. I think there was no suggestion that the return might be less than that fixed, but the investors—and a very large portion of them, Mr. Stanley has told you, are residents of Cleveland—seem to be opposed to any change from the fixed—the absolutely fixed—rate that they were entitled to. They were afraid that any added flexibility might result sometime in their getting a less return than the franchise allowed them; so that that provision

of flexibility was not embodied in the franchise when it was renewed.

Mr. WARREN. Of course, you would say, I presume, that the franchises ought not to contain a maximum rate of fare?

Mr. NASH. Neither a maximum nor a minimum.

Mr. WARREN. Yes.

Mr. NASH. Neither.

Mr. WARREN. In view of the experiences of the last year and a half?

Mr. NASH. I think the less definition regarding fare schedules that is actually set forth in the franchise the better; and the more that can be left to the judgment of the supervising authorities the better. It may be advisable in cities to change from a fixed fare basis to a zone basis, or change the character of the schedules in some other way; so that if a franchise does not require a certain kind of fare to be charged at varying rates the opportunity to make a change in the type of the schedule is obtained.

Mr. WARREN. That exists in the Massachusetts statute, as I recall it. The company can submit to the public-service commission a scheme of fares, with a sliding scale, and when the commission approves it, the scale can be made effective; and it may subsequently, if the commission permits, substitute another scale, a different kind of scale; is not that so?

Mr. NASH. An entirely different kind.

Mr. WARREN. Yes.

Mr. NASH. There is no definition of rates or scales in the Massachusetts acts at all. The only thing is that whenever a particular schedule of fares is in effect, there must always be ready to go into effect steps above and below, so that there will be no delay in making a change, whenever it is necessary, promptly.

Mr. WARREN. Have you stated what rate of return is allowed on capital in these different franchises. Does it vary?

Mr. NASH. It does vary to a material extent. I think it is 5 per cent plus a proportion of the divisible surplus—one-third, I think in this case. In Chicago, it is 5 per cent plus 45 per cent of the surplus. Kansas City has 6 per cent. We have not any real service-at-cost franchises.

Mr. WARREN. Would you call Chicago a real service-at-cost franchise?

Mr. NASH. It is not.

Mr. WARREN. It is a partnership arrangement?

Mr. NASH. It is a partnership arrangement, with a division of the surplus, really.

Commissioner BEALL. Chicago has two plans. There is one that you have not mentioned. That really increases your return. They are allowed to charge a certain amount when they negotiate securities, which goes into their treasury. As a matter of fact, one of the companies out there has something like four or five million dollars accumulated through that process, which is entirely outside of the rate of return that they are allowed on their capital stock or the value of their property.

Mr. NASH. That is a very liberally promulgated supervision allowance.

Commissioner BEALL. Not when you figure it down, but it is an addition to what you have mentioned.

Mr. NASH. All of that adds to the average rate of return. The Dallas franchise embodies the highest theoretical permissible rate that I recall; and that is 9 per cent, and that is only obtainable when the fare is appreciably below 5 cents.

Mr. WARREN. But what they assume to be a normal fare in Dallas is 7 per cent.

Mr. NASH. That is 7 per cent.

Mr. WARREN. That is 7 per cent on the value of the property?

Mr. NASH. Seven per cent on the value of the property, as fixed in the franchise.

Mr. WARREN. And I do not suppose anybody can tell to-day what should be allowed, if you considered that.

Mr. NASH. Only in a general way. If the costs of living generally have gone up not less than 50 per cent, the investor, who theoretically may live on his income, ought to have his income increased 50 per cent. The investor makes his money work for his living, and he is just as much entitled to a higher wage on his money as the working-man is entitled to a higher wage for his physical labor.

Mr. WARREN. Do many franchises provide for the actual rate which has to be paid for obtaining new capital?

Mr. NASH. There are several of them that provide that the actual cost of obtaining new money, whatever it may be, shall be allowed as a part of the cost of the service. That is true in Cincinnati, as Mr. Culkins testified. It is also true of the Youngstown franchise, the most recently granted, and not included in my summary. That is true of the Massachusetts provisions, too, but not entirely so either, because the Boston Elevated was allowed, of course, a certain fixed return upon the capital stock to cover interest requirements upon borrowed money.

Mr. WARREN. I think that is all, Mr. Nash.

The CHAIRMAN. I have not had time to review your pamphlet, Mr. Nash. Have you discussed the theory of the cost of service in the different franchises that exist in Cincinnati, Cleveland, Dallas, and some other places, and also the experiences which have been derived from the exercise of those franchises?

Mr. NASH. I have discussed the theory and the experiences in cases like Cleveland, where the franchise has been in operation a considerable number of years. I have in the case of Dallas, I think, although at the time that was prepared, only about one year of experience was available. A great many of those franchises were so new that there is comparatively little about the actual experience in that.

The CHAIRMAN. If the commission should desire to cross-examine you at some future time, could you come back here?

Mr. NASH. I will be glad to.

The CHAIRMAN. There are one or two points that I would like to develop. It appears that the cost of public supervision must be borne by the utility.

Mr. NASH. I think so.

The CHAIRMAN. Might not that prove very burdensome to the utility in the case of small plants?

Mr. NASH. It might, of course; but I think that the supervision might be so adjusted by having a joint supervisor for a number of such small plants who would not spend all of his time on any one of them; a supervisor, as I have suggested before, appointed by the State commission and responsible to them, dividing his time over an appreciable number of small plants. I think that is quite true; that a very small railway would not need the attention or the entire attention of even one supervisor, and other large systems will require not only the entire attention of one man but of a subordinate staff of engineers and accountants.

The CHAIRMAN. If one company operates in several villages, and also in the suburban territory, it might follow that you would have as many contracts, different in form, as you have villages through which the company operates?

Mr. NASH. That probably would be the case, because they are apt to disagree rather than agree on some things.

The CHAIRMAN. It would also follow that municipalities would be attempting to establish rates for service for communities over which they have no control.

Mr. NASH. They might attempt it, but they could not enforce it.

The CHAIRMAN. How are you going to work out that situation?

Mr. NASH. I think, especially where a railway system covers a number of cities and villages, that there must be State supervision; that the municipality could grant a franchise only for the part of the system within its limits, and it would only control the part of the system within its limits. There is an attempt in several of these service-at-cost franchises, notably Montreal, I think, to extend the influence of the agreement beyond the confines of the city, and, as far as I know, it is working through the sufferance of the adjoining communities. It is, I think, a good deal to the advantage of these communities that the general plan which is in effect in Montreal should be working in these other communities as well, because it gives to them probably lower rates of fare than they would otherwise be paying.

The CHAIRMAN. Now, back in Minnesota, for instance, a rapid-transit company operates on the streets of St. Paul and Minneapolis, and the same cars go out into the suburban territory, 18 to 20 miles. When it gets beyond the territory of the city of Minneapolis, it operates as a railroad company, yet you have the same equipment, the same men, the same company, and the same capital investment. Manifestly, it would be very difficult for the city of Minneapolis to attempt to establish the service on the rails in the outlying territory. Therefore, it seems that you must, in some way, link the State and the city together.

Mr. NASH. I think that is quite necessary. It must be, of course, an apportionment of the value of the property over the city and of all movable property between the city and suburban communities.

The CHAIRMAN. I have no further questions to ask at this time.

Commissioner BEALL. I just want to ask Mr. Nash a question or two.

You were saying that you did not believe that the service-at-cost franchise should provide too large a depreciation and obsolescence fund; and it was not clear to my mind what was in your mind. How do you propose that that should be taken out? As I understand it,

there are only two ways of dividing it. You must do it year by year by accruals or else pay it in one year, getting the whole lot of it at once.

Mr. NASH. I would not take care of it out of capital at all.

Commissioner BEALL. When you said you would not charge the present car rider for any of that beyond a certain point, I did not know what your theory was, or how it would be taken care of. That is what I am trying to get at. I did not know what you had in mind.

Mr. NASH. The thought I have in mind is that every railway should set up a reserve. I do not know that I would attempt to define what that would be, because it involves so many different questions as to probable useful life and the extent of the effect of changes in the art and all that; but if I were guessing at a suitable reserve, which would take care of any actual retirements and replacements on a normal charge, I would say something like 10 per cent of the investment. I think that would be enough to wholly take care of any normal amount of retirements. There might conceivably be a time when some very large element in the property—for instance, if they had a very large power station, with reciprocating engines, and it would be necessary, for reasons of economy, to replace that plant with turbine units and converting system, the writing off of that entire plant, together with other current retirements, might conceivably overdraw the accumulated reserve. But what would happen, I think, as a matter of fact, would be this, that in a case such as I have cited, when this new power plant was built—and I have known of a case of exactly this sort to actually happen—instead of tearing down the old plant and writing it off and selling for junk, it would be retained; some parts of it very probably removed to the new station as being useful for future service, and the balance retained for emergencies. Such emergencies happen. I have known things that have been shut down for a year or two—and when I say “emergencies,” I include the abnormal demands of the war period, and the inability during that period to secure new equipment—I have known these old plants that have been shut down for several years to be replaced in service and operated more or less continuously. So that the retirements, the writing off, and the disposing of large items of property of that kind may very properly be spread over a term of years, instead of being taken out all at once.

Commissioner BEALL. I do not know whether I understand what you mean or not—whether you will want to put that burden on the future car rider and extend it into the future, rather than have it accumulated in a fund from year to year, which would ordinarily take care of those kinds of items.

Mr. NASH. I would accumulate a fund for a reserve, which could be invested in the extensions of property, and not held in cash.

Commissioner BEALL. You see what I mean?

Mr. NASH. Yes.

Commissioner BEALL. If a big plant comes to you to spend a million dollars for possibly this new power house or equipment or whatever it may be, you either have that money accumulated—and the difference between what you have accumulated and what is needed you have to raise in some way and spend it. There are only two ways of taking care of that: You either have to charge it to capital account, which is probably wrong, or else you have to amortize

that for quite a series of years in the future, and charge it for, perhaps, so much per year.

Mr. NASH. My thought about the methods of accounting—and I think they are consistent with the Interstate Commerce Commission requirements and those of some of the other commissions—is that when new property is added to railway facilities, it should be charged to the property account. Now, if a railway builds a new power station, that new power station is its property, and it should be added to its capital value. The prescribed methods are that when property is retired or abandoned or replaced, it must be written off, and the amount which was actually spent on the property account must be removed.

Now, it is not necessary, for accounting purposes, that the removal of an old plant, which may be temporarily, and possibly permanently, put out of actual use, should be written off at exactly the time that the new plant is added to the property. It may be disposed of in the way that the Interstate Commission prescribes. If it is an actual retirement and the reserve is not available in full, it may be put into a suspense account provided for that purpose and taken out of property and gradually written off.

Commissioner BEALL. But the public service commissions having jurisdiction over electric railways will not let you write anything off that kind off except the excess for your old property. They will not let you take a new station that cost \$1,000,000, and charge that in as new construction. If you are going to abandon then or later an old power house it has some value. You will duplicate your capital if you do that.

Mr. NASH. What they expect to be done is that when a piece of property is abandoned it should be written off, regardless of whether something else takes its place or not. When anything new is added to the property, whether it takes the place of old property or not, it should be added to capital, and properly, of course. Where there is a substitution, the old elements should be taken out. If it is really abandoned, it should be taken out at the time the new one is added; but the accounting system does provide for a suspense account in which that can be carried if the accumulated reserve is not adequate to take care of it until the additional accruals can be made to make the amount available adequate. I think we are quite agreed on the principle. It is just a matter of accounting practice, in which commissions have endeavored to allow some latitude in the way in which the retired property shall actually be charged off through the operating and expense accounts.

Commissioner BEALL. I was trying to get at what portion you thought should be charged to the present car rider and what portion you ought to charge to the future riders.

Mr. NASH. It is not a thing that can be definitely fixed, because you can not state definitely whether a particular retirement is due to obsolescence. It is not wholly in those cases. A piece of track is torn up because the city wants to pave the street. It is hardly worn out, but the cause of removal is partly wear and tear and partly supersession, or whatever you want to call it.

Commissioner BEALL. You see, we are anxious to get from everybody who has stated these different plans their ideas and the best way of working them out.

Mr. NASH. I have studied this question of depreciation a good deal.

Mr. WARREN. Mr. Nash, what would you do with this piece of track? I think that would answer Mr. Beall's question. You say you would take up a piece of track. Suppose it had 20 years' life, and the city repaves and wants to take it out at the end of 15 years?

Mr. NASH. I would take that immediately out of the property account entirely.

Mr. WARREN. At what rate?

Mr. NASH. At what it actually cost originally.

Mr. WARREN. Let us say \$50,000.

Mr. NASH. A new piece of track would conceivably cost \$100,000. The whole of that \$100,000 cost of new track would be added to the property account. So that the net increase would be the difference between the two.

Commissioner BEALL. That is \$50,000. You only have an increase in your property value of \$50,000.

Mr. NASH. \$50,000.

Commissioner BEALL. Only \$50,000.

Mr. NASH. That is all.

Commissioner BEALL. That would be the real increase. Otherwise, you would duplicate your value. Of course, that means the same thing, but I was trying to see how you would take care of that.

Mr. NASH. I am not arguing for a duplication of capital.

Commissioner BEALL. No; I do not think there is any difference in what we mean, but we have stated it in different ways, and I wanted to see what your idea was as to how to take care of it. It may be useful to the commission to know that.

Mr. NASH. I think it is a disputed question as to how far obsolescence should be borne before the fact rather than after the fact, because it is essentially an indefinite question. You can not tell how far in any specific replacement that one element rather than another requires the replacement.

The CHAIRMAN. We will suspend here to resume at 2 o'clock.

Commissioner MEEKER. It seems to me that Mr. Warren's question has not yet been answered, and I would like to hear the answer to it.

Mr. WARREN. I do not think so, either.

The CHAIRMAN. You can get that answer at 2 o'clock.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

STATEMENT OF MR. L. R. NASH—Continued.

Mr. WARREN. I think I am through with my questions of Mr. Nash.

Commissioner SWEET. Mr. Meeker, I think, has some questions he wants to ask Mr. Nash.

Commissioner MEEKER. I would like to ask again the question Mr. Warren asked, with a little modification. Let us take the supposed values that he suggested, a piece of track that has cost originally \$50,000, and let us say that \$30,000 of the \$50,000 has been written off in depreciation, that there remained \$20,000 capital investment unaccounted for, and that for some reason or other the track is torn up and relaid by new track which costs \$100,000; how would you recommend handling that bit of finance?

Mr. NASH. Now your assumption is not quite in accordance with the established accounting practice. That is, this original piece of track would stay in the property account in full as long as it remained in service. There might have been \$30,000 accrued to take care of it—

Commissioner MEEKER. I was not making any assumptions there as to what was actually done with the capital investment as shown by the books of the company, but \$30,000 has actually been taken care of through a depreciation fund and \$20,000 has not been touched at all.

Mr. NASH. That piece of track when it is taken up, there would be some salvage to it; say a possible \$5,000 of salvage, although that would be large. That would be realized in cash, leaving \$15,000 of value unprovided for, and that, if there was no more reserve to take care of that, would be put in a suspense account in your standard accounting system, called property abandoned, and would remain there until a sufficient reserve had been accrued to take care of that balance.

Commissioner MEEKER. It would be accounted as part of the investment until it was written off?

Mr. NASH. Well, it would be taken out of the property account, but would still be included in an asset suspense account.

Commissioner MEEKER. So that any estimate of the value of the investment would take that into account—

Mr. NASH. It would not. It would be taken out of the property account.

Commissioner MEEKER. Well, but I am speaking now not merely of the property account, but of an estimate of investment upon which the company is entitled to a reasonable return. There would be the \$100,000 which the new track cost, plus \$15,000, would there not?

Mr. NASH. Yes.

Commissioner MEEKER. Making a total of \$115,000 on this particular piece of line which the company is entitled to earn a reasonable income on.

Mr. NASH. I think about \$15,000 should be included in the rate base, so to speak, until it has been written off, because otherwise it is a part of the investor's money that would not be earning a return as it should.

Commissioner MEEKER. I want to make sure of that. The questions asked by Mr. Beall seemed to rather becloud the issue so that I was not certain of your opinion. Now you have brought up some very fundamental and theoretical questions in your testimony this morning in regard to changing the rate of return with changing levels of prices. The term "gamble" has been introduced in this morning's session. I want to ask, do you think there is any greater uncertainty to the investor to guarantee him a fixed return in goods purchasable by money rather than to guarantee him a fixed return in money itself?

Mr. NASH. I should think there was. That is, money has a constantly varying value and what an investor wants is purchasing power.

Commissioner MEEKER. Well, your answer then—let me put the question again. My question was, Is there any greater uncertainty to the investor under a guaranty of a fixed return in goods purchasable by money rather than a fixed return in money itself?

Mr. NASH. The answer to that is no. I did not understand your question.

Commissioner MEEKER. The greater risk would inhere in the fixed money return; would it not?

Mr. NASH. I think so, but of course that is fundamentally so, and yet I think the average investor is not apt to quite appreciate it. He perhaps, without recognizing the full significance of what is going on in the past few years, is very likely more apt to say he would rather take a chance, whatever the chance is on his fixed return rather than submit himself to adjustments. A good many investors would very much rather do that.

Commissioner MEEKER. Do you think that is true to-day?

Mr. NASH. Well, whether this is true of the average investor I would not like to say.

Commissioner MEEKER. It seems to me the financial literature is littered with costs of living data—

Mr. NASH. It is.

Commissioner MEEKER. And with articles on the changing levels of prices; and we know in what direction they have been changing for the last 20 years, and it would seem to me that quite likely the investor would much rather be assured of a fixed return in purchasing power rather than a fixed return in a depreciating dollar.

Mr. NASH. I think any investor who is a student of economics appreciates that previous to these war times there was a steadily or fairly steadily diminishing purchasing power of the dollar. We have estimated that the cost of electric-railway property since about 1894, I think, when the upward trend started, has been about 3 per cent a year on an average. So if that was true of commodities generally it would necessarily follow that the purchasing power of a dollar has decreased in that proportion and the purchasing power of an investor's return on a fixed investment has similarly decreased.

Commissioner MEEKER. We are getting into the theory which I do not care now to enter into, because I do not think it is pressingly important in this problem, although it is quite important: the question as to whether the rate of interest tends to rise with rising prices. Do you care to express an opinion on that subject?

Mr. NASH. No; I do not think so—not unless you wish it particularly.

Commissioner MEEKER. I will not press for an answer on that, but I do want to call your attention to the fact that what you have just said does depend upon the correctness or the incorrectness of the theory that interest rates do tend to increase with increasing prices and they tend to decrease with decreasing prices. Now, my own opinion is that there is no necessary connection whatsoever, and we may have increases in prices with decreasing interest rates, and vice versa. But whether or not—well, I do not care to press that any further unless you care to express an opinion upon it.

I would like to have your statement in regard to changing the rate of return with changing price levels. This morning, if I understood you correctly, you said you believed that the rate of return should change with changing price levels.

Mr. NASH. My thought was that where there are radical changes in conditions, such as have occurred during the war, that an injustice might be done either to the investor or to the party on the other side

with fixed rates of return. But under normal conditions, where radical changes of that kind are absent, I think the average investor would much prefer what he considers the security attaching to a fixed rate of return.

Commissioner MEEKER. A fixed rate of money return?

Mr. NASH. Yes.

Commissioner MEEKER. And not purchasing power?

Mr. NASH. Yes.

Commissioner MEEKER. In case there is any provision for a changing of rate of money return, would you wish to limit that provision in any way? Would you make it a changing return as prices increased but not make it a changing return in case prices decreased?

Mr. NASH. I think with full fairness the question should be left entirely open. Of course, the investor from his point of view would prefer to see a stop which would not operate against him, but the public from their point of view would prefer to see the stop the other way; and in fairness to both, if the question is open at all, it ought to be open both ways.

Commissioner MEEKER. That is, there should be a rule to work both ways?

Mr. NASH. Yes.

Commissioner MEEKER. If the rule is to be introduced at all?

Mr. NASH. Yes. And as I said this morning, I think if a rate of return is fairly fixed in the beginning—fair to the investor under the existing circumstances—that the question of readjustment should be restricted to an extent measured by the specific changes in the conditions existing at the time of the readjustment from what they were at the time of the original fixing and not to leave the question wide open for somebody to sit down and say, "What is the market value of money to-day," but rather, "What is the difference in the value or rate of return on money to-day from what it was 10 years ago, say, for an investment of this particular character and risk?" I would narrow the arbitrable issue just as closely as possible.

Commissioner MEEKER. Would you make these periods of readjustment fixed periods, every 5 or every 10 years, or would you prescribe in a general way that the readjustment should be made whenever such and such an exigency arose—whenever a question of changing price levels, for example, brought the serious issue of the purchasing power of the dollar of income before the public?

Mr. NASH. I think the nearest approach to an accurate determination of actual cost of service as applying that thought to a case of a railway company would be to have that question opened whenever the occasions definitely arose; but there again would come the thought on the one hand of the investor that he would hesitate about having the question of his rights raised at any time that anybody might want to raise them, and the public on the other hand might feel that there might be an advantage to them in holding the investor down, for instance, during a given term of years rather than having the issue opened at any time.

Commissioner MEEKER. The reason I asked the question was because price levels have changed more within the past year than they had during the past three or four years, to put it very conservatively, and they have changed within the war times more than they had changed within the previous years.

Commissioner GADSDEN. In connection with what Mr. Meeker is asking you, I want to ask you whether it is not true that, when we come to the question of the return on capital—the rate that money shall bear—that is a question which is practically solely determined by the investor. It is not a question that we can legislate about, nor is it a question that we can compromise on. If the terms are not satisfactory, the investor puts his money in other industries than the street railroads. Is not that true?

Mr. NASH. That is very true.

Commissioner GADSDEN. So it is not a two-sided question, where the parties can discuss it pro and con. You have got to do what the investor wants in that respect, have you not, or you do not get his money?

Mr. NASH. This also is true, that if an issue of bonds is offered to the investing public and the term of the bonds is, say, 30 years, the public will pay for those bonds what they think the average return on that money ought to be for the 30-year period during which those bonds run. That is, a fair guess of the economic financial conditions of the future to a certain extent.

Commissioner GADSDEN. What I had in mind—if the investor was apprehensive of a provision in the franchise whereby the rate this: Is it not entirely up to him to say what those terms shall be? put any more money into street railway business; would he not?

Mr. NASH. That is perfectly true.

Commissioner GADSDEN. And the point I want to bring out is this: Is it not entirely up to him to say what those terms shall be? The city could not provide the terms, the companies could not provide the terms. We have at last got to one point in the inquiry where one class of people dictates the terms, have we not?

Mr. NASH. They dictate the terms on the money that they have got. On the money that they have already loaned under certain prescribed conditions they can not; they have to take the return until they get it back.

Commissioner GADSDEN. Of course the fellow that is in has to take what he can get, but the fellow who is out and whom we want to bring in—

Mr. NASH. The fellow who is out can dictate whether the electric industry or any other industry shall advance or remain fixed and stagnant.

Commissioner MEEKER. Admitting the truth of that—and I do not think anyone will gainsay it—my question was whether you think investors would refuse to invest under terms that I indicated, of a revision either upward or downward according as prices change or price levels change. Do you think investors would refuse to invest under those circumstances?

Mr. NASH. That is a question that I can not answer from experience. I do not recall that just that kind of a proposition has been put up specifically to the investing public.

Commissioner MEEKER. I think that is correct, so far as my knowledge goes.

Mr. NASH. It is a matter of speculation as to what the frame of mind of the average investor would be.

Commissioner MEEKER. But you did answer in response to a previous question of mine that you thought there was less hazard

involved in investing under a guaranty of a fixed return in purchasing power than there is involved in investing under a guaranty of a fixed return in money.

Mr. NASH. I think that is undoubtedly so; but the question remains as to whether the average investor appreciates that point, and I am not sure that he does.

Commissioner MEEKER. Well, I think we have covered that sufficiently. There are two other questions I had in mind.

Commissioner BEALL. When you are through with that I want to ask some questions.

The CHAIRMAN. Do you want to follow up this line?

Commissioner BEALL. It has a bearing on it; yes.

Commissioner MEEKER. Go ahead.

Commissioner BEALL. Is it not true that, in any proper plan for operation at cost of street railways, that it includes a provision as part of the cost of operation, if you please, of what it costs to get capital, money from time to time? Street railways always have to raise large sums of money from year to year other than what they may get out of earnings, even though they are prosperous—a great many millions every year, the country over. Now every proper plan should provide for that cost, should it not, as part of the cost of operating the property?

Mr. NASH. Every plan should—

Commissioner BEALL. Every plan provides for it that I know of and every other so far as I have any knowledge of. Did you ever know of an investor who ever bought a bond where the interest on it at any time could be made less?

Mr. NASH. No.

Commissioner BEALL. I do not think anybody ever knew of such a case.

Mr. NASH. I do not know of any.

Commissioner BEALL. The only case where a man is willing to take less than what the property is paying when he goes into it is when he is dealing with what are called equities in stock. There he knows that if the property earns more his dividends may be more or they may be less, but when he is bidding on stock he is counting on a minimum dividend in his own mind; is not that true? It may be a property that never has paid a dividend, but he is in hopes that it will.

Mr. NASH. He is hoping that he will. Whether he can count on it or not is another question.

Commissioner BEALL. But he does not count on its not paying at all?

Mr. NASH. No.

Commissioner BEALL. Is it not true that the only forms of capital where that is done is where a man is, you might say, speculating, and he does not hope for a reduction but an increase and he would not invest otherwise?

Mr. NASH. The holder of a final equity, of course, always is subject to fluctuation. It may be nothing at one time and very good at another. He is speculating on an average—

Commissioner BEALL. But he is not investing on that theory. He knows he runs that risk, but he is not investing thinking that that is going to happen, if the company earns nothing. He is expecting

it will earn something. If it earns 4 per cent he hopes it will earn 5 or 6 and not 3 per cent.

Mr. NASH. I think that is so.

Commissioner BEALL. Did you ever know of a man who invested his money on any other theory?

Mr. NASH. No. There is always—

Commissioner BEALL. If I may continue that a little further, does not that take care of itself in this way—that every proper franchise of a company under the cost-of-operation plan provides for the cost to the company of getting money from time to time? Now, a few years ago some big companies who had large earnings would sometimes borrow at as low as 4 per cent, some of them at $4\frac{1}{2}$, and the average was 5, $5\frac{1}{2}$, and 6. To-day you could not sell anything at all to the public probably at less than a 6 per cent basis. What you could get money from the bank at I do not know, but very few companies could sell anything at any price. Now, next year if times and conditions surrounding these properties are better, of course that rate may be 5.5 per cent, maybe it will be 7 per cent. But when that time comes that the company has to get money the point is they have to pay the market rate for the period of time they want it, whether it is 1, 5, 10, 20, or 30 years, but that rate varies and whatever that cost is, the franchise should provide a means of taking care of it.

Mr. NASH. It certainly should provide—

Commissioner BEALL. It is a part of the cost of the property; it is what it costs you to get that money.

Mr. NASH. The return on the long-term issues of securities of course would of course be much more stable than short term notes.

Commissioner BEALL. You never knew of a case of a man who bought a bond which bore 5 or 6 per cent with the understanding that sometime that rate could be reduced?

Mr. NASH. I never heard of such a case.

Commissioner BEALL. He has a provision in it that if the interest is not paid he forecloses and takes the property?

Mr. NASH. That is the case; but the man would be affected by an adjustment of the average rate of return such as we have been discussing.

Commissioner BEALL. The man who owns the property is a different matter; but the obligations you sell to the public by the way of new capital have to bear a fixed interest subject to no change unless it is an increasing one and not a decreasing one?

Mr. NASH. That is undoubtedly true.

Commissioner MEEKER. Mr. Nash, I would like to ask regarding the sinking fund or barometer fund, as you refer to it: You said, as I recall, that you thought it should be partly charged to capital investment and partly built up from net earnings. Would you give your reasons for that? I was not clear on that point.

Mr. NASH. There is not any very great difference as to whether it is built up in one way or another. If the money is raised in cash outright at the start, the whole fund, the riding public immediately begins to pay interest on that whole fund. Now, if that can be immediately invested in additions to the property so that it earns its own support, it does not cost the car rider anything. If, on the other hand, no extensions to the property are made for a time, that fund lies idle except as it may draw a small interest on bank deposit

and the investor is getting a much larger return on that. That is, the property is paying under the franchise a 6 per cent return and this part of the investment only draws 2 or 3 out of the bank and the car rider pays temporarily the difference. If only a small part of that money is raised from capital, new money, and charged to the property account, it is much easier to immediately use the cash available for additions because of its smaller amount.

Commissioner MEEKER. Would that be safe financiering, to invest the whole barometer fund in extensions?

Mr. NASH. Not the whole of it, but it would a large part. I would treat a barometer fund in that respect very much like a cash balance that the company might have, that it would keep in cash just what was needed for outright payments of any maturing obligations or emergencies.

Commissioner MEEKER. In that way you advocate building up the fund partly out of capital and partly out of net earnings?

Mr. NASH. To avoid adding so much to the capital account—that is the only advantage in that.

Commissioner MEEKER. I am not quite clear about this sliding-scale business. You spoke of the franchise in Cincinnati. When the fare becomes 6 cents then no extra earnings go to the company at all, in case there should be any?

Mr. NASH. If the fare is in excess of 6 cents. When it is 6 cents the company gets 20 per cent. When it is 5.5 cents, the company gets 35 per cent, I think. And when it is 5 cents, the company gets 45 per cent.

Commissioner MEEKER. Of course it is possible to devise a sliding scale which will have no limit except infinity, upward and downward?

Mr. NASH. Yes.

Commissioner MEEKER. Is that the London sliding scale?

Mr. NASH. The London sliding scale has no limit at all. And as applied in the case of the Boston Gas Co., the original company to adopt that in the United States, there is no limit there. Regardless of the existing rate of return and the existing price of gas, if there is a reduction of 5 cents the rate of return goes up 1 per cent. No limit either way.

Commissioner MEEKER. Do you think that is a superior form of sliding scale to the Cincinnati or the Dallas plan?

Mr. NASH. I think so in principle, because of its lack of limits in either direction.

Commissioner MEEKER. Does it give sufficient incentive to efficiency in management to the company?

Mr. NASH. In principle it does, and in practice it does if it starts at the right point. If the original—

Commissioner MEEKER. The starting point puzzled me somewhat. Will you elucidate that somewhat, just how you fix upon a certain starting point and the approximately correct one?

Mr. NASH. If I recall rightly, when the Boston Gas Co. adopted this act, which was a State legislative act which gave them the right to employ this sliding-scale principle, the price of gas was fixed at 90 cents, and that was the so-called normal price of gas. The corresponding rate of return was 8 per cent. Then when the price of gas, as it did, went down to 85 cents, the company got 9

per cent, and when it went down to 80 cents, they were allowed 10 per cent. Now if the price of gas should have been \$1 instead of 90 cents, corresponding with 8 per cent, it should have been 80 cents or 85 cents. The effect would have been materially different.

Commissioner MEEKER. Yes; I see.

Mr. NASH. And it was somebody's business—I do not know whose now—to see that that adjustment was made, and it has always been charged, whether justly or not I do not know, that the price of gas corresponding with an 8 per cent return was fixed somewhat too high.

Commissioner MEEKER. That is all.

Commissioner SWEET. Are you a member of the firm of Stone & Webster?

Mr. NASH. I am not.

Commissioner SWEET. Have you investments in street-railway properties of your own?

Mr. NASH. Yes; I have, unfortunately.

Commissioner SWEET. In the statements that you have made here orally and in this pamphlet are you taking an attitude in favor of investors that in a sense conflicts with the interest of the general public so far as you know?

Mr. NASH. I do not think my personal interest in the matter is sufficient to bias my judgment. I try to ignore that side of it.

Commissioner SWEET. In the present situation is there a conflict of interest between the general public and the investors in utility properties, either those who have invested or those who may become investors?

Mr. NASH. There is no real conflict. A good many people think there is, but fundamentally the interests of the public and the investors I think are substantially identical, in the final analysis.

Commissioner SWEET. When the railroad companies were making large profits and the public was seeking to get all it could out of the companies there was a conflicting attitude between the two that does not exist at the present time, in your judgment?

Mr. NASH. I think there was more difference of opinion in those older days that you speak of, but even then I think that the differences were imaginary to a considerable extent rather than real. I firmly believe that the exorbitant profits which the electric railways are alleged to have made in the early days are very largely fictitious. I say that because I have had occasion to make a considerable number of careful studies of the history of these old properties, going back even through the days of horse cars, 45 and 50-year periods of complete study.

Commissioner MEEKER. Have you published any articles on that subject?

Mr. NASH. I have not; no. And I found that in the horse-car days in typical cases—that is, cases that I think are entirely typical—that the companies were able to earn approaching 10 per cent on an average. There were years in which they earned more and others in which they earned less, depending upon the general business conditions. But in the cases that I have studied carefully, the average of the whole horse-car period has been less than 10 per cent upon the actual cash investment, regardless of security issues; and since the days of electrification the average return has been materially less

than that, less than 8 per cent, and that is not an extravagant rate of return, by any means.

Commissioner SWEET. I figured from what you said that you think the solution of this problem depends upon cooperation upon the part of the company and the public.

Mr. NASH. I think that is very essential, cooperation based upon a knowledge upon the part of the public of the condition of the electric railways which they have not at present acquired in full by any means.

Commissioner SWEET. Who do you think has the greatest interest in arriving at a correct solution of this problem, the companies or the public, if there is any difference between the two?

Mr. NASH. There may be some difference as to time—that is, the railroads are for the moment much more disturbed over the situation than the communities are. In the long run, the communities have just as vital an interest in the prosperity of the railways as the investors have, because the communities can not exist without transportation. The investors can take their money out and put it somewhere else or they can lose it.

Commissioner SWEET. Take a city like Pittsburgh, for instance, as you have heard the testimony here. I think you were present.

Mr. NASH. Yes.

Commissioner SWEET. With regard to the rather critical and serious situation in Pittsburgh. Suppose you were called in as an expert and a student of this question, and asked to recommend what the people of Pittsburgh should do now to bring about a better situation with regard to their street-railroad facilities. What, briefly, if you are willing to mention it, would be your recommendation?

Mr. NASH. Without being fully acquainted with the local situation, particularly as to the degree with which the public are acquainted with the financial condition of the railway, I would say that the public should be acquainted as promptly and as thoroughly as possible with the actual condition of the company, not only the actual present condition, but the past prosperity or lack of it. The public very often says that the railways are poor and they are not earning their living, but they ought to live on their fat—they have earned so much in the past that they had better get along awhile until they have consumed their fat and then we will allow them some increased revenue.

Commissioner SWEET. That is on the assumption that there has been some fat?

Mr. NASH. Yes. Now, if there has not been an accumulation of fat the public ought to know it, and there has been altogether too much exaggeration as to the accumulation of fat in the street-railroad business.

Commissioner SWEET. Then the first step that you would recommend to the people of Pittsburgh is that they learn the facts as they are actually and not as they may have supposed them to be?

Mr. NASH. Yes.

Commissioner SWEET. What is the next step?

Mr. NASH. The next step which would naturally follow would be a recognition by the public of the justice of a larger revenue to the railroad.

Commissioner SWEET. Do you mean justice from the standpoint of the investors or do you take in the entire community as being benefited by what you are going to recommend now? Is it good for a part of the community or of the foreign investors, or is it for the good of the entire community?

Mr. NASH. The investors should be entitled to a return on the money that they have put into the property and—

Commissioner SWEET. Do you mean that from the standpoint of investors merely or do you think in the long run it is for the interest of the entire community that justice shall be done to investors?

Mr. NASH. It is undoubtedly to the interest of the community, because if justice is not done to the investor, he is going to quit and go somewhere else and the service and the community will suffer.

Commissioner SWEET. Then self-interest would induce the public to do what is best, not only for the investor but for the public itself. Is that right?

Mr. NASH. They should and I think they will.

Commissioner SWEET. Very well. How would you provide that? The service-at-cost plan—would you recommend introducing that, so that investors could be assured of a proper return on their capital?

Mr. NASH. I think service-at-cost plan would give more assurance to the investors of a proper return on their money than any alternative plan that has been proposed.

Commissioner SWEET. Right on that point let me ask you one question.

You said this morning that in Massachusetts the public in some way—the State, I think you said—had guaranteed a certain percentage on the investment; did you not?

Mr. NASH. Yes; in the case of the Boston Elevated.

Commissioner SWEET. In the case of the Boston Elevated?

Mr. NASH. Yes. It is not the public at large; it is the public in the communities served.

Commissioner SWEET. The public in the communities served?

Mr. NASH. The State treasurer pays out the voucher and then assesses it back on the community served in proportion to their riding.

Commissioner SWEET. That is done under a Massachusetts law?

Mr. NASH. Under a State law.

Commissioner SWEET. Do you know whether other States have a law which would permit that to be done?

Mr. NASH. There are none that I know of.

Commissioner SWEET. So that that remedy would not apply generally throughout the country?

Mr. NASH. But I do not know that there are any limitations on legislative acts of other States of the same kind, I mean constitutional limitations. There may be or may not. That is a question of State constitutions.

Mr. WARREN. I think Wisconsin has such a statute, recently passed.

Commissioner SWEET. Any other States besides Wisconsin?

Mr. WARREN. I do not recollect any, but I happened to see a very recent statute in Wisconsin.

Commissioner SWEET. Where that can be done, Mr. Nash, I take it that the investment would be more certain than it would under the service-at-cost plan?

Mr. NASH. Undoubtedly.

Commissioner SWEET. If it is backed up by an organization, State or otherwise, that is solvent, so that investments would be more readily made and perhaps would be made at a lower rate somewhat by reason of the extra certainty.

Mr. NASH. A materially lower rate, I think.

Commissioner SWEET. If so guaranteed. So that if States had the authority—or communities—to make such a guaranty that would secure the investment more certainly than any other way that has been proposed; would it not?

Mr. NASH. I think that is undoubtedly the case; the security would be greater, and the return demanded would be lower.

Commissioner SWEET. But service at cost, where such a guaranty could not be legally made, or if it could be legally made if it is not made, if the community does not wish to make it, if I understand you aright, comes as near as may be or as is practicable under present conditions to giving that assurance to the inventor?

Mr. NASH. It does. It is an assurance that the investor places a good deal of reliance upon, as shown in the case of Cleveland. The company has always paid for the full 10 years, including the war time, the return which the franchise authorizes upon the company's capital. It has never failed.

Commissioner SWEET. It is an absolute assurance with just one limitation, and that is that enough money shall be made?

Mr. NASH. That is the only limitation.

Commissioner SWEET. Enough net income——

Mr. NASH. Can be obtained from the public.

Commissioner SWEET. That is it exactly.

Mr. NASH. And the public in the final analysis is the one to decide whether it is going to patronize it at any rate of fare.

Commissioner SWEET. And if there is not a limit as to the fares to be charged then the question would simply turn upon the point of greatest revenue—that is, fares could be raised to the point where patronage would fall off to such an extent as not to increase the revenue?

Mr. NASH. Yes, that is the truth; the point of maximum net revenue that will be earned.

Commissioner SWEET. If that point is enough to protect the investor he is just as well protected as he would be with a guaranty or in any other way?

Mr. NASH. Yes.

Commissioner SWEET. But he would not know that. That is the disadvantage of it; is not that true?

Mr. NASH. That is true.

Commissioner SWEET. Then would your next step be in your recommendation to Pittsburgh to adopt the same general plan they have in Cleveland or Cincinnati?

Mr. NASH. The same general plan, yes.

Commissioner SWEET. With certain modifications which you mentioned?

Mr. NASH. Just incidental modifications. I think the question of a point of flexibility that I mentioned—not having the thing so tightly sewed up that it can not be adapted to varying conditions from time to time—and the point of incentive to both the investors and the management to get the most that is possible out of the property—the investor to more readily furnish the money, the management to keep itself up to the highest pitch and to keep in the service of the railway the class of men that is necessary to secure the best results. If the extent of supervision, for instance, is so great that the officials of the company are merely clerks to carry out the instructions and the plans and designs of the supervisory body, that is not attractive work for a real man. Just so far as is consistent with the interest of the public I think the management should be left free to initiate the improvements and take credit for improvements.

Commissioner SWEET. But you would have a director, as they have in Cincinnati, or a commissioner, or three commissioners—some body representing the public?

Mr. NASH. Yes.

Commissioner SWEET. To see all the time that this is carried on?

Mr. NASH. Yes; I would.

Commissioner SWEET. What other steps would you recommend? Any others?

Mr. NASH. You mean what other changes from the fundamental plan?

Commissioner SWEET. Yes. Suppose we now want to put Pittsburgh on a proper basis as regards its street-railroad facilities and get rid of their receivership; I assume you would prefer, if you could, to get rid of the receiverships or the need of them and put the companies on a paying basis under regular ordinary private management; would you not?

Mr. NASH. I think that would be possible as soon as the plan was adopted, that the company could be so refinanced or reorganized that it would take care of itself. Its credit would be so improved by the adoption of a plan by which there was assurance of return to the investor that reorganization or refinancing could be effected without great difficulty.

Commissioner SWEET. Then the initiative should be made by the city of Pittsburgh; is that your idea in the adoption of a different kind of franchise?

Mr. NASH. It is not necessary that the initiative come from either side, but very properly the city of Pittsburgh might say that they were willing to grant a franchise of this kind to the railways if they would accept it, and define the term; and, of course, various more or less extended negotiations would follow before the city and the company would get together. That would be inevitable, I think.

Commissioner SWEET. It would not make any difference which one started it?

Mr. NASH. Not at all.

Commissioner SWEET. Providing they had their conferences and they finally resulted in such an arrangement?

Mr. NASH. No; I think the point of initiation is immaterial.

Commissioner SWEET. The public officials representing the general public having at least as much interest in the matter as the com-

panies have, although perhaps not quite so immediate. That is your idea, is it not?

Mr. NASH. Yes.

Commissioner SWEET. And with the adoption of a change of that kind, with an indeterminate franchise providing, as I understand they usually do, and as you think they ought to, for the possibility of the city taking over the entire property, if it sees fit, upon equitable terms that could be prescribed in the franchise, you think that the arrangement might be made without unreasonable delay and give the relief that is necessary and bring about, we will say, as good results in Pittsburgh as they are getting in Cleveland?

Mr. NASH. I see no reason why that should not be the case, except that in all probability Pittsburgh would not be able to operate on as low a cost and, therefore, as low a rate of fare as Cleveland. There are essential differences in type between the communities, but the principle would be the same.

Commissioner SWEET. That is a feature of it that I did not mean to bring into it, because I assume that there are local differences. No two cities are just alike.

Mr. NASH. No.

Commissioner SWEET. They all have their local problems, and one city might be so situated that a 5-cent fare would be really higher in the way of producing revenue than a 6-cent fare would be in some other city. Is not that true?

Mr. NASH. That is very true.

Commissioner SWEET. So that each city, so far as the actual fare is concerned, must be controlled largely, if not entirely, by the existing conditions in that locality. Is not that so?

Mr. NASH. That is entirely so.

Commissioner SWEET. But under this flexible system that would adjust itself, would it not?

Mr. NASH. It could not help it. The fare would automatically adjust itself to the cost of service, whatever that was.

Commissioner SWEET. That is it exactly. Where the cost would be greatest the fares would have to be the greatest to meet that cost.

Mr. NASH. If the city was dissatisfied with the cost they might conceivably be satisfied with a lower standard of service. That is not usually the case, though. I think that the public in most of the cities of the United States want good service, and if they are satisfied that what is called cost is real cost, they are willing to pay it.

Commissioner SWEET. What you have said about a remedy for Pittsburgh would also apply, if I understand you correctly, in your judgment, equally well to practically every other suffering community of the United States?

Mr. NASH. I think it would.

Commissioner SWEET. That is all.

Commissioner BEALL. I would like to come back for a moment to that question of depreciation. I think perhaps we did not quite understand each other. Do you not think that it is for the best interests of the public, as well as the companies and investors, that a property should be allowed to earn its full depreciation as it goes along in fares? Otherwise they would be unable to maintain for themselves and for the public the real value of their property. If you start with a street-railway company that, for the sake of argu-

ment, has an investment of \$1,000,000, everybody knows that every year a certain part of that wears out and has to be renewed—certain parts of the plant and apparatus, etc. Now, if you do not renew or make an accrual fund to provide for that from year to year, the day would come when your property that cost \$1,000,000 might be worth only six or seven hundred thousand dollars and yet you might have \$1,000,000 in securities out against it, and instead of giving \$1,000,000 service you would be giving a \$700,000 service. Now, I do not know what their rule is to-day, but your firm of Stone & Webster some years ago had either a written law or an unwritten law that not less than either 18 or 20 per cent, I do not remember which—

Mr. NASH. Twenty.

Commissioner BEALL. That not less than 20 per cent of the gross earnings of any street railway that they operated should either be expended or reserved each year from gross earnings for maintenance, renewals, and depreciation. Now, if you were accepting for any of those properties to-day a service-at-cost plan, would you not feel that it was absolutely necessary to include in such plan that 20 per cent, or whatever sum you deemed was necessary to take care of that property over a long period of years? Because if you did not do it, the day would surely come when your property would actually be worth less money than it was when you started out some years before. You might have a less value than the city had allowed you and than they were permitting you to earn on, and you would have a less value on which your securities were based. Now, although that may result in the accumulation of a cash fund from time to time, it is customary, is it not, to invest quite a part of that fund in other extensions than additions than the exact renewal of a certain piece of property which may be in process of wearing out, the idea being that in one form or another, by property of some kind, or in cash you are always maintaining that value. If you do not do that you are not treating the city right or the public or the investor in your company. Is it not necessary to take care of that?

Mr. NASH. I am in thorough accord with the policy or rule, written or unwritten, of reserving not less than 20 per cent of the annual gross earnings of a railway for combined maintenance and depreciation. Now, that rule, as you naturally assume, is not an arbitrary one. It is based on—

Commissioner BEALL. I am not trying to say what is correct—it may be 18 or 25 per cent, but there is some such amount?

Mr. NASH. Based on a long experience with properties I have had occasion to test that rule out with properties we have operated for a good many years, and as a matter of fact, it results in the keeping on hand of a sufficient reserve to take care of replacements, current, and large units, as they are required. I do not think it is large enough to accumulate what would be called a theoretical reserve for accrued depreciation of the property. Now, it is not—

Commissioner BEALL. I know; but you can put it into other things. The idea is to at all times maintain the value that you started out with.

Mr. NASH. That reserve is accumulated and invested in extensions to the property—

Commissioner BEALL. Some of it.

Mr. NASH. Now, when you come to ask me to set aside a reserve, fully enough for theoretical depreciation, I have got to tell you I do not know how, because I do not know in the first place what the life of a railway property is, and that is really fundamental in order to set up any reserve.

Commissioner BEALL. But you have a pretty good idea of it?

Mr. NASH. Well, I have not, unfortunately.

Commissioner BEALL. Well, your operating men, then.

Mr. NASH. Unfortunately there are a good many of the operating men who have not; for ever since I have known anything about the electric-railway business we have gone through one state of changes after another. I have never yet seen an important piece of electric railway property worn out. I have seen it put aside because some more reliable or efficient piece came along, and that is almost the inevitable rule—that the railroad property is abandoned because it does not fit in with something else, it is not suitable for the extended service or it is not up in efficiency with modern standards. And the question that I am confronted with if I attempt to forecast accrued depreciation is how is the future development in the art and in public demands and other things that enter into this question going to compare with the past. I am forced to say I do not know. I have hopes that the near future, at any rate, will not show as radical changes in the art as the past has. We have gone through the age of horse cars and cable cars and the very experimental electric cars, and just now we are going through a radical change in type of car, from the big two-man double-truck car to a light one-man car, and something else may come up and it may not; but if there was not this question of obsolescence and supersession and other things, aside from wear and tear, to come up, the life of the average electric-railway property with recurrent renewals of parts could be maintained indefinitely; so you could not say a car would wear out in 30 years or in 100 years. At the end of 100 years there would be no part of it left, but in no year would you change from an old car to a new car. That is the difficulty is estimating depreciation.

Commissioner BEALL. Well, you might differ from somebody else as to the amount, but you know what it has been, and is not this correct? You know in your own mind there would be some minimum sum and you would feel that if at least that amount was not preserved, your line would soon come to a point where your property was worth less now than 5 or 10 years ago? And I think you will agree that should not be permitted, in justice to the city or the riding public, or the investor. If it takes a million-dollar property to serve a certain-sized community, it should be kept at \$1,000,000; it should not fall below.

Mr. NASH. Its investment should be kept there, and assurance should be given that no part of that property should ever be abandoned without having a sufficient reserve to replace it.

Commissioner BEALL. That is the point exactly. Now, men may differ very materially as to what that amount should be, but each one would have a minimum below which it should not fall each year.

Mr. WARREN. The principle is perfectly clear.

Mr. NASH. I think there is no question about the principle at all.

Commissioner BEALL. And you should be allowed to earn it out of your fares; the earning power of the company should be made to include that?

Mr. NASH. It should, unquestionably.

Mr. WARREN. It should not be paid out of capital.

Mr. NASH. No.

Commissioner BEALL. You are unfair to the public if that is not done.

Mr. NASH. Yes.

Mr. WARREN. We may differ as to the amount—

Commissioner BEALL. Yes, but there has to be an amount to take care of it?

Mr. WARREN. Yes.

Commissioner MEEKER. You have spoken of the one-man car as if it were a foregone conclusion, that it either had superseded the old heavier car or that it would supersede it. What experience have you to base that judgment on?

Mr. NASH. We have in various properties several hundred of that type of car in operation. They have been in operation in some cases two and a half years—more than two and a half years—and they have been successful to such a degree that in my own mind I have accepted it as the foregone conclusion that this was the coming type of car for a very considerable portion of electric-railway service.

Commissioner MEEKER. Do you think it would be an economical car to put on in New York City railway lines?

Mr. NASH. I have not made any study of New York conditions. I think there will be a witness on this subject who will speak with reference to New York conditions later. But I will say this, that I do not know of any places where the one-man car has been tried that it has failed on account of density of traffic. There has been a rather cautious introduction of it, I think, so that it would not be pushed too fast in the way of application to very dense-traffic conditions; and very probably it will be found that the operator on that type of car would have trouble in making fare collection in cases of congested loading with sufficient promptness to maintain a satisfactory schedule.

Commissioner MEEKER. You heard the testimony that one of the witnesses gave yesterday. I think it was, in regard to the one-man car operating under a zone system?

Mr. NASH. Yes; I heard that.

Commissioner MEEKER. Do you think that it is feasible to have switches in our streets so that the one-man car will operate only in a single zone and be turned back at the end of that zone?

Mr. NASH. No; I do not think that would be practicable. Street-car service has got to be, for convenience, continuous.

Commissioner MEEKER. It would seem so to me. How is the one man going to collect fares in the second, third, or seventeenth zone?

Mr. NASH. He can collect in the second zone perfectly well. That is, he can collect from a passenger entering in the first zone and leaving in the second zone. Beyond that, where there are more than two zones, it would be necessary for the operator when a passenger gets on not to collect the fare but issue an identification check which will tell him what zone that passenger got on in. Then when the

passenger gets off, regardless of how many zones he has gone through, the operator will see at a glance or have a mechanical computer in front of him which will tell him the amount of fare the passenger should pay to correspond with the identification check, and the payment would always be left until the passenger left the car. There are no insurmountable difficulties about that arrangement that I know of at all.

Mr. WARREN. We have another witness especially on the one-man car whom we hope to put on to-day. I do not want to cut your questions short, but we will cover that subject.

(Witness excused.)

The CHAIRMAN. Let the record show that ex-Governor Foss of Massachusetts sent a telegram to the commission requesting the privilege of appearing before us to-morrow or on Friday. We have set to-morrow at 12 o'clock for his appearance; and I hope, Mr. Warren, you will make your arrangements accordingly.

STATEMENT OF MR. CHARLES L. HENRY.

Mr. WARREN. Will you give your full name?

Mr. HENRY. Charles L. Henry.

Mr. WARREN. Your residence?

Mr. HENRY. Indianapolis, Ind.

Mr. WARREN. And you have sometime, I think, been referred to as "the father of the interurban railway."

Mr. HENRY. Well, that is when they do not have respect for my old age.

Mr. WARREN. But you have had a very wide experience in interurban railways?

Mr. HENRY. Yes; I have.

Mr. WARREN. And are connected with a great many to-day?

Mr. HENRY. No; not with many, but with only one company to-day.

Mr. WARREN. What is that?

Mr. HENRY. The Indianapolis & Cincinnati Traction Co. I was connected formerly with the Union Traction Co. of Indiana, and as manager of that company built some of the principal parts of the road.

Mr. WARREN. And you are acquainted with the interurban railways in other parts of the country?

Mr. HENRY. Yes.

Mr. WARREN. Missouri and Illinois?

Mr. HENRY. Yes; quite fully.

Mr. WARREN. We have thus far had practically no testimony specifically directed to the interurban railways; and I believe you are prepared to tell the commission something about them, and something about their conditions and difficulties and usefulness. Before you begin, Mr. Henry, these are—

Mr. HENRY. That is a map of what we term the central-electric territory, the central-electric territory being that which is covered by the Central Electric Railway Association, prepared by their traffic department and corrected up to date; and it is typical of the general development of the interurbans.

(At this point the map referred to was presented to the Commission.)

Commissioner BEALL. Did you build that terminal in Indianapolis, the first interurban terminal?

Mr. HENRY. No; I did not.

Commissioner BEALL. Was that before—

Mr. HENRY. That was built by the Indianapolis Traction Terminal Co. I was not connected with that company, but I have been using it with our cars ever since it was built.

The CHAIRMAN. Will your testimony relate exclusively to the interurban as distinguished from the street-cars?

Mr. HENRY. It will so far as I know, unless you want to ask me about something else. They will lap over, of course.

The interurban railway is a matter of 20 years' growth. Perhaps it is well that we get clearly in our minds what is the interurban as we talk about it. We have a good many electric railways: We have the electrified steam road. We have some special electric lines built for a specific purpose like, for instance, the line from Philadelphia to Atlantic City, which amounts to nothing but a shuttle train really between points; it does not do any general interurban business, it pays no attention to the intervening territory. Then we have what are known as suburban electric roads which you are all familiar with. They run out to the various suburbs of the city or town which they serve. Then we have, as in New England, the roads which connect up the various communities, sometimes called interurban, but entirely distinct from what I am going to talk about, because, except for the fact that they run upon the country highways, they are as much street railroads in fact and in operation as the roads themselves within the cities and towns.

The interurban, as ordinarily understood and which I will direct my remarks to, is of a different character from that. They are built to take care of the traffic between cities and towns and from the country to the town and the town to the country. It is to serve not only the travel between cities and towns but it is to serve the country community between those cities and towns. It is not confined to passenger business but it includes express business and it includes freight business. In other words, it is intended to serve the communities for the transportation which properly belongs to that class of road. It is in one sense a competitor of the steam roads. In another sense it is not, because it has and develops and makes a traffic of its own because of its peculiarity.

The first electric road in Indiana was built and the first car run the 1st day of January, 1898. There had been some little interurban development in Ohio before that time. It was restricted, however, because of the restriction on power. The three-phase distribution system of power was not known in electric railways at that time. It had been out in the West in connection with power in the mountains, carrying the current to the cities for lighting purposes, but up to the time of the building of the Indiana Traction Co.'s line at Anderson for three-phase distribution, it never had been applied to street-railway purposes. The station there was the first station of the kind built. That brought out the opportunities of interurban business, because before that time the direct current died too soon, the loss was too great. The first line we built was only 12 miles long, from Anderson

to Alexandria; and in order to get enough current up at Alexandria we would put in the Anderson station what we called a booster. That ran it up to 1,200 volts and carried it up to Alexandria and by that time it had dropped to 600, and we put it in there at 600 volts, and that is all we could do. But the three-phase distribution permitted of reaching any distance that was needed, being transmitted on the high tension line to substations 10 or 12 miles apart; there the voltage was reduced and transformed into direct current and a large amount of copper was dispensed with and the current was distributed equally all over the system. From that time that has been the general way of operating interurbans and is now. Of course, like everything else new, we did not have a broad idea of the possibilities of interurbans when we commenced. They were built cheaply, with lighter rails, smaller cars. We did not think anything about freight, we did not think anything about train dispatchers. We would put a signal with a lever at one switch and a lever at another switch and we stopped and got the train through as best we could.

Then after a while we saw that would not do. So the present system—and I say the present system, for it is practically uniform, the system of operation of interurban roads at this time—was gradually adopted. A train dispatcher was employed and we used the telephones for issuing orders, and we have the men take the orders by telephone and repeat them back to the dispatcher, and a record is made and it tends to safety. We put on larger cars, put a compartment in for the smokers and another compartment for the general public and another room for the baggage and express, and then in the forward part a compartment for the motorman. The cars average in size from 55 feet up to something like 65 feet long, with heavier trucks, heavier motors, and heavier wheels, either steel-tired or steel wheels. The purpose of that in the first place was to keep from chipping the flange, which made it dangerous, because the flange had to be smaller where we ran through the city. Air compressors are put on the cars so that the air brakes are as complete as on the steam roads. Electric headlights are used; and they run through the country at varying rates of speed, some of them as high as 60 and 70 miles an hour. The fastest train that ever ran on our road we ran from Indianapolis regularly to Connersville, 58 miles, and we made the run in an hour and a half by schedule time, 22 minutes of that being taken in getting out 4 miles to the suburbs of the city.

THE CHAIRMAN. How many stops were there on that route?

MR. HENRY. We made two intervening stops—one to meet the other car running in the opposite direction, and the other at the county seat of Rush County, Rushville. That gives you some idea of the speed at which they can be run.

Now, the old way when we commenced was that we picked up the passengers everywhere; we stopped on hail at a crossroad or an alley; it did not make any difference which. But that would not work; that took too much time, so we had regular stations adopted, and we got tickets and finally we organized a traffic association that is the publisher of this map, which covers the territory of Indiana, Ohio, Michigan, part of Pennsylvania, and part of Kentucky; it does not cover Illinois simply because there is no physical connection between the lines in the two States. Under that freight business was built up

and regular freight schedules of trains and also freight tariffs filed with the commissions, both the State and interstate, covering the freight rates, and the passenger business the same way. So that it is a regular systematic business—serving these communities; and this map which you have is fairly indicative of the general territory covered by the interurbans, although it is true in this territory there is a larger proportion than in other sections, according to the size of the territory.

Down in south Missouri the great Southwest Missouri system serves the mining districts of Joplin, Webb City, Carthage, and over to Pittsburg in Kansas. On the western coast there are some very large systems, the Pacific Electric being the largest. Over in Illinois, the Illinois Traction, one of the biggest systems in the country, and the Aurora, Elgin & Illinois is another, and from Chicago to Milwaukee is another good system. This gives you an idea of the extent of it.

Now, they vary in amounts in different parts of the country, but I am telling you about the body of them.

We are in all the States now nearly, you may say, generally speaking, subject to the public-service commissions in everything. We file with the Interstate Commerce Commission everything relating to interstate business, and to that extent we are controlled by the Interstate Commerce Commission. This does not do away with the local restrictions in towns, about which I want to speak a little later. Some of those are troublesome and many losing propositions. But I have tried to give you a general idea of the business.

Now, we have at Indianapolis the most perfectly developed system for taking care of the people who come into and go out of Indianapolis. We have a terminal traction building there owned by the Indianapolis Traction & Terminal Co., which is the local city company, which just changed hands by reorganization the other day—I mean changed the name by consolidation, but it remains the same in every other respect. That was built with a view of taking care of the interurban business. I have before me some extracts from the report of the secretary and treasurer of that company, which I think you would be glad to have, from Mr. McGowan:

In accordance with your verbal request, we beg to advise that during the year 1918, 7,519,634 passengers arrived and departed from the Traction Terminal Passenger Station. The number of passenger trains in and out of Indianapolis during the year 1918 was 128,145.

That gives you some idea of the extent of the business; that is, the passenger business.

Now, I will stick for a little while to the passenger part of it, and then I will give you some of the other. First, I want to give you an idea of the extent of the mileage in these States. Michigan has 865 miles; Ohio, 2,486 miles; Indiana, 1,732 miles; Kentucky, 158 miles; Illinois, 1,575 miles; a total in these 5 States of 6,816 miles of interurban road.

The Merchants' Association of Indianapolis is constituted of all of the principal retail merchants. I asked the manager of that association to give me a letter as to what the interurban is to Indianapolis. If you will allow me, I will read it:

Replying to your inquiry as to what extent the traction lines entering Indianapolis benefited the retail trade of this city, be advised that while we are not able to give you exact figures as to the increase in retail trade that the

interurban lines are directly responsible for, we are safe in saying that no factor has done so much to increase down-town trade as have the interurban lines.

Indianapolis being the center of the State probably enjoys a better out-of-town trade than any other large retail center in the country. This is in a large measure due to the fact that the interurban lines make it possible for residents in a smaller city or town adjacent to Indianapolis to come to the city to do their trading and return at most any hour of the day.

In former years this association rebated railroad fares, this plan having been abandoned some 14 years ago. The plan served, however, to materially increase the out-of-town trade, but had it not been for the interurban lines, the increase would not have been nearly so large as it was.

Since the abandonment of the rebating of railroad fares the out-of-town trade has still kept growing and to-day is even greater than when the customer's fare was paid to and from Indianapolis.

The credit files maintained by this association show thousands of persons throughout the State having regularly established credit accounts in our stores, and we are safe in saying that the majority of these customers travel to and from Indianapolis by interurban.

Generally speaking the interurban lines are the greatest asset that a retail center can have.

Very truly, yours,

MERCHANTS' ASSOCIATION, INDIANAPOLIS,
W. E. BALCH, *Manager*.

The CHAIRMAN. Right at that point, can you tell me about what radius Indianapolis draws its trade from on the interurban lines?

Mr. HENRY. Well, some all over the State, but largely within 100 miles; some to all points within the State. That is largely because of the length of the lines, but that is about the way it is.

Commissioner BEALL. That terminal station in Indianapolis was the first one of its kind; was it?

Mr. HENRY. Yes; it is the only one of its kind to-day that is as complete as it is. The one at Los Angeles is large and efficient, and all that, but it does a little different kind of business. It takes care more of the suburban cars, as you are aware, perhaps.

Now, this passenger business I want to speak of a little bit with regard to the other towns. I am seeking to show you what the interurban means and why it is a necessity to these various communities. Interurban towns outside of the large cities—I will give you now a picture of the Indianapolis trade, the passenger trade. My idea and that of others was that the little towns would be injured by the interurbans. We all expected it, but it has proved not to be true. It is a fact in practice, that every town in Indiana, and the rest of this territory all over the country that an interurban touches, is benefited by it. It makes it a better place for them to live; they are happier and more contented; their homes are nicer and fixed up better. They can go to the theaters; they can go to parties; they can go to association meetings, and go and come as they please and when they please; and they have made it easier to live there. They live there and do business in town. We have a number of persons that do business 25, 30, or 40 miles away from their homes. There is one woman down in Shelbyville, 26 miles away, who occupied a State position in connection with the schools, who goes back and forth every morning and evening. That is an illustration of what I mean. The children go to the schools, from the country or the villages to the larger towns, either the grade or the high school. They go there and attend church if they want to; and it makes it one community.

They all rely upon the service of the interurban for the purpose of going and coming.

Those who travel most are furnished with reduced rates, so that they get now almost uniformly in our State \$20 worth of riding for \$17.50. That is about the way it is arranged now; that is what used to be the mileage book. And a 40-ride book is sold at about $1\frac{1}{4}$ cents to $1\frac{1}{2}$ cents. There is a 60-ride monthly book sold for about $1\frac{1}{4}$ cents. Now they fit into the different classes. The school teachers and children use the 40-ride book because it fits into their opportunities. People who go to work in the larger towns and work every day only buy the 60-ride book. The fares have been changed—I speak of it in order that you may have it in your picture. Whereas we charged originally about $1\frac{1}{2}$ cents for the ordinary fares, then we adopted what was known as the penny-zone system, which was a cent for every half mile or 2 cents a mile; then in January, 1918, we put our rates up to $2\frac{1}{2}$ cents and in February, 1919, we put them up to $2\frac{3}{4}$ cents. That is almost uniform over the entire State.

Mr. WARREN. Do you have a minimum fare along with that?

Mr. HENRY. Yes; the minimum fare used to be 5 cents and has been made 10 cents; so that there is no fare now less than 10 cents.

The CHAIRMAN. By order of the commission or by statute?

Mr. HENRY. By order of the commission. The statute made no regulation of our fares. Our rates are—It has all been done by the commission, and in that I may say that the commission, since they got their faces turned toward the East and saw what was needed—it was a little difficult to get them to see what was needed, but as soon as we got their faces turned in the right direction and they did see what was needed—they have shown a disposition to co-operate with the interurbans.

The CHAIRMAN. I think you have a good commission in Indiana.

Mr. HENRY. Well, I second the motion. We have. But here is one of the troubles about it. We were going in the hole for from six to nine months because of the losses in operating expenses before we got an increase, and when we got the additional increase it was the same way; it took three months to get them to issue the first permit for $2\frac{1}{2}$ cents per mile. I presented the petition for our road first, and it took us three months to get action on it, before we got them in the notion of really doing it. They first thought maybe the 2-cent fare law affected it; and we showed them it did not; it only affected steam roads; and after that they treated us—well, I will not say with liberality, but with all the justice the situation demanded and required.

Mr. WARREN. That was the second application?

Mr. HENRY. Yes; $2\frac{3}{4}$ cents. Two and a half cents was the first one.

Mr. WARREN. That took how long?

Mr. HENRY. It was three months before we got the first action on it.

Mr. WARREN. And by the first action do you mean the approval?

Mr. HENRY. Yes; it is a permission in our case; it is a permit to file.

Mr. WARREN. That is from the time you filed your application until you got the permit?

Mr. HENRY. Not exactly that. I talked to them about it and tried to get them to receive the application and they would not even docket it at first. It took a good while to get it on the docket.

The CHAIRMAN. That was because they thought they had no jurisdiction over the fare?

Mr. HENRY. They doubted the fact of their having jurisdiction because of the 2-cent fare law on the statute book.

Commissioner MEEKER. Were the steam roads limited?

Mr. HENRY. They were, yes. That has been removed by the last legislature.

Mr. WARREN. But from the time they recognized their jurisdiction until you got your permission—

Mr. HENRY. It did not take them long to act on it after that—a month or six weeks—no longer than was required to get up the necessary papers and everything.

Now, I want to give you a little idea of the freight business in order that you may understand the extent to which it has been developed. First, I am going to read you a short letter from a live-stock shipper, as to what benefit the interurban is to the community:

CRAWFORDSVILLE, IND., July 16, 1919.

Mr. CHARLES L. HENRY,

President Indianapolis & Cincinnati Traction Co.,

310 Traction Terminal Building, Indianapolis, Ind.

DEAR SIR: I have been told that you want an expression from me as to the advantages of shipping stock over electric lines, as compared with steam-railway service and wish to state that my experience in using both services has proven conclusively that the electric-road service is by far the better, principally for the reason of quicker service.

This quicker service makes it possible to practically save the transportation charges by the elimination of shrinkage. For this reason I, as a buyer and shipper of stock, am able to pay the stock raiser 10 cents more per hundred pounds than I could if my shipments were made over the steam roads.

Another reason for the saving is that while shipping over steam roads I would average a loss of one hog to a car, while between September 12, 1918, and July 15, 1919, I have shipped 355 cars of hogs from Crawfordsville to Indianapolis and have lost just one hog.

Hoping that this information will answer the purpose for which you want it, I am,

Yours, truly,

JESSE S. WARD.

Now, count that the average carload, and you will find that the electric line put into the pockets of the farmers in the vicinity of Crawfordsville, who sold their stock to this one man, \$7,100 more than would be paid them if he had to ship by the steam road.

The CHAIRMAN. It ought to be pretty easy sailing, selling electric stock to those hog raisers.

Mr. HENRY. You think it should?

The CHAIRMAN. Sure.

Mr. HENRY. Well, he would rather make his money the way he does. He makes it quicker, faster, safer, and better.

Commissioner GADSDEN. He wants to make his money and keep it, you mean?

Mr. HENRY. Yes. He is satisfied with it as it is, as you see from his letter.

Now, it is generally supposed, gentlemen, that the traffic—freight traffic—is limited to short distance. I want to read you a letter here

somewhat at length, although it is not very long, that shows you how much it has already been developed as to long distances. This is from Mr. Norviel, general passenger and freight agent of the Union Traction Co., of Indiana, dated July 17, 1919:

Mr. C. L. HENRY,

President Indianapolis & Cincinnati Traction Co., Indianapolis, Ind.

DEAR MR. HENRY: Answering your esteemed favor of July 16 on the request of our freight service. This is rather a hard matter to give, offhand, without sufficient time to gather statistics to back up the statements made by us. However, in a brief way will state that for some years we have operated a fast freight from Indianapolis to Fort Wayne, Ind., (125 miles) the present schedule being as follows: Leaving Indianapolis 3.30 p. m., arriving at Fort Wayne at 11 p. m. Leaving Fort Wayne on the Ohio Electric 4 a. m. and arriving at Toledo about noon the following day (137 miles). Total Indianapolis to Toledo, 262 miles. Returning, leaving Toledo about 6 p. m., arriving at Fort Wayne about midnight over the Ohio Electric and leaving Fort Wayne about 6 a. m. and reaching Indianapolis at 2.45 p. m. The motor car in this service operates between Indianapolis and Fort Wayne transferring freight from or to points beyond Fort Wayne which may be contained in the motor car to and from the Ohio Electric, motor car operating on the above schedule to Toledo, Ohio, but the trail cars make the entire trip unopened.

The effect of this service is freight leaving Indianapolis at 3.30 p. m. is ready for delivery at Fort Wayne at 6 a. m. o'clock the following morning and at Toledo at 12 o'clock noon of the next day following its departure from Indianapolis, including all intermediate points touched by this service. Returning from Toledo, merchandise loaded on one day reaches Indianapolis at 2.45 p. m. on the day following. An actual service not bettered by American Railway Express.

Regarding the South Bend service a train leaving Indianapolis, known as the Cannon Ball, at 7.00 p. m., makes deliveries to South Bend at 8 o'clock the following morning (171 miles), with corresponding deliveries to all intermediate points. Returning, a train leaves South Bend about 4 p. m. and arrives in Indianapolis at 5.10 a. m. the following morning with corresponding service for such intermediate points as Warsaw, Goshen, Elkhart, etc. A service not equaled by the American Railway Express Co. These trains operate six days a week and are reasonably uniform on their schedules.

We handle, in connection with the motor service above referred to, from one to three trail cars on each of the trains named and have had as many as three trail cars loaded with freight from Toledo to Indianapolis and vice versa, and from Indianapolis to South Bend and vice versa.

The South Bend service will shortly be extended to Michigan City, connecting with the Indiana Transportation Co. between Michigan City and the city of Chicago and the city of Milwaukee.

A water line part of the way.

The volume of this traffic I believe I can safely state is governed only by the amount of equipment that can be set aside for same, as the time of these schedules is far superior to any other mode of transportation, that the traffic simply waits on facilities. Much of this traffic would be in carload lots of 1. c. l. shipments under seals and without breaking bulk between large terminals and would undoubtedly be a very profitable traffic to foster.

Trusting this is the information you desire, we beg to remain,

Yours, truly,

(Signed)

F. D. NORVIEL,
G. P. & F. A.

The CHAIRMAN. You may proceed, Mr. Warren.

Mr. HENRY. I have a number of letters here, gentlemen, that I will leave copies of. I will leave them with the reporter, and in order to save time will read extracts on a few points, because it would take up too much time to read the whole letter. If you will permit me to do that, I will then hand the letter to the reporter.

The CHAIRMAN. Suit yourself, sir.

Mr. HENRY. Here is a letter from M. O'Connor & Co., large wholesale dealers in Indianapolis, in which they make this statement:

INDIANAPOLIS, IND., July 17, 1919.

INDIANAPOLIS & CINCINNATI TRACTION Co., *City*.

GENTLEMEN: Much has been said about railroad transportation and what it has done for various communities, but here in Indianapolis the jobbers and manufacturers realize that the traction lines centering in this city have brought more business to this city on account of the splendid service and low rates given the people of rural towns and districts touched by these lines.

We can not say too much in praise of the service rendered the merchants of this city and State by the traction lines by giving good service at a reasonable rate.

It is with great pleasure that we write this, and we know we echo the sentiments of practically all of the people in the community served by your and other traction lines.

Yours, very truly,

(Signed) M. O'CONNOR & Co.,
O. C. HAGUE.

Here is a little side show that I want to give you.

There are a great many communities that are not served by electric current, and the business has grown up over a great many lines of selling current to those communities, sometimes to the individual farmer, sometimes to the grain elevator, sometimes to the town to be distributed, and sometimes to the communities. I have one letter here that illustrates that situation.

This is from Mr. G. K. Jeffries, the general superintendent of the Terre Haute, Indianapolis & Eastern Traction Co.:

INDIANAPOLIS, IND., July 16, 1919.

Mr. CHAS. L. HENRY,
President I. & C. Traction Co., City.

DEAR SIR: This company, in addition to the power which it uses for transportation purposes, furnishes power to 14 towns who retail it to the inhabitants of the towns for lighting and power purposes and for street lights.

In addition to this we sell along our lines to 24 other consumers, such as planing mills, elevators, brick plants, tile plants, etc. We will connect up within the next few days a cement mill which will use between 600,000 and 700,000 kilowatts per month.

Hardly a week passes that we do not have inquiry for power, and just yesterday a large zinc mill on our line was conferring with us for power to the amount which will be consumed by the cement mill or more.

Very truly, yours,

(Signed) G. K. JEFFRIES,
General Superintendent.

The CHAIRMAN. Then your electric line is also a power company?

Mr. HENRY. Yes, sir; the transmission, as I stated at the beginning, is of such a character that it carries an immense volume of power.

Mr. WARREN. Is that generally true of interurbans?

Mr. HENRY. Yes, sir; it is.

Mr. WARREN. Most of them furnish power?

Mr. HENRY. Yes, sir; that is a fair illustration of the situation. On our little road we have 13 towns and villages that we supply with power. Then we supply grain elevators and farmers, anybody that wants it.

Mr. WARREN. Many of those places, I suppose, were without any service until you supplied it?

Mr. HENRY. All of them that are mentioned. We have no competition. We put them in nowhere where there is competition.

What I wanted to refer to before was this:

The freight tonnage carried in and out of Indianapolis for the year 1918, by interurban freight trains, amounted to 151,654 tons.

The express business carried in and out of Indianapolis for the year 1918, in the express and baggage compartments of passenger cars, amounted to 12,673 tons.

If you will just permit, I should like to say a word there, and I do not want you to consider it as too much criticism, but I would like to have you consider it as little criticism.

This refers to express business. Before the Railroad Administration organized the American Railway Express Co. there were contracts with almost all of the electric lines in the country, the interurban electric lines, for carrying the business of the old line express companies.

Mr. WARREN. On what basis?

Mr. HENRY. They were paying us about 40 or 50 per cent of the receipts. That is the same general kind of contract that the steam roads had; but when the American Railway Express Co. was formed by the Railroad Administration, they immediately commenced diverting the business from the electric lines to the steam lines. I would also state personally that the accounting department aided also in cutting down the revenue of the electric railways; so much so that on our little road, where we had been getting about \$500 a month from the Adams Express Co., it commenced going down right away. During the first six months it went down to about three-fourths of what it had been, and for the month of November they sent us a check for 4 cents. I had that check photographed and have it hanging up in my office. I wanted to bring you a copy of it, but I forgot it.

Mr. WARREN. What effect does that have upon the express service to the communities?

Mr. HENRY. It has hurt them. These communities that we serve in many instances have no steam roads. That does not apply to all of them. We run to the same place in many cases; but not only that, they do not get the frequent service that we give. For instance, take the C., I. & V., that runs along our line from Indianapolis to Connersville. I do not know what their present schedule is, but they only have a local passenger train stopping once a day, and that is westbound. They run it down to the east and transfer the express, and that is only once a day that they stop their westbound train; whereas on our line they get it every hour, or every hour and a half throughout the day, if they want it.

In view of the fact, the traction lines have gone into the express business, and the public-service commission of our State has granted off-line and interline rates. We are going into the business, and we are increasing our business. We did before what we called station-delivery express. We did not use a wagon-and-pick-up-and-delivery system. That is one of the things that the war and the formation of the Railroad Administration have put on us. I will tell you some of the rest of them after a little bit.

Now, I have a very interesting letter here from the Western Ohio Railway Co., from Mr. Carpenter, which I would like to read:

THE WESTERN OHIO RAILWAY CO.,
Lima, Ohio, July 19, 1919.

CHARLES L. HENRY,

*President Indiana & Cincinnati Traction Co.,
Care of The New Willard Hotel, Washington, D. C.*

DEAR SIR: Replying to your favor of the 16th instant, beg to advise there is nothing striking or exceptional to the general rule to the operation of our line that I am able to report. However, I wish to state a few items that in my judgment should be included in your report, and you without much doubt will have these already in your mind.

During the sugar-beet season we have been of material benefit to the sugar-beet growers by being able to place cars near to their fields and thus save considerable time and expense in hauling the produce to places for shipment. This is also true of many other commodities, especially with factories located in the various villages along our line.

We have just concluded a contract for the handling of about 2,000 carloads of cement, sand, and gravel for the building of public highway which runs adjacent to our tracks. The contractor was able to make a less price for his work on this road by reason of the prompt and convenient delivery we were able to make, thus effecting a saving to the State and all other parties who are taxed for this improvement. In this case we receive the carloads from the Baltimore & Ohio in Wapakoneta, Ohio, and transport them to various sidetracks upon the road where the work is being performed, and as above stated, afford a great saving to the contractor, besides effecting a more prompt delivery of the material, as compared with their haul by wagons or trucks.

Last year we completed a contract for 16 miles of Dixie Highway, amounting to 3,800 carloads of business, which was handled in the same manner as the above, also making a saving to the contractor and the taxpayers.

We operate through service between Dayton, Lima, Toledo, and Detroit, and all intermediate stations, which through-freight service handles shipments to all points reached by interurban lines in the States of Indiana, Michigan, Ohio, Kentucky, and on account of the short time in which this freight is delivered it makes quite a saving to the public located in this territory in the way of being able to order their goods in the morning and in many instances have same in their possession the same evening or the following morning.

During the war the interurban lines in this territory were a great factor in the movement of all classes of freight, and especially Government freight, used in the manufacture of war supplies, and the service rendered at that time and also at present is practically the same as express service.

At the present time we are handling many carloads of castings, automobiles, automobile starters, wheels, etc., from Dayton to Detroit, Pontiac, Grand Rapids, and various other manufacturing centers and are giving second morning delivery from Dayton to points mentioned. Shippers are gradually appreciating this prompt interurban service, but we are handicapped in many places by municipal restrictions as to the number of carloads that can be handled in each train, and in some places we are restricted to the movement of one motor car and one additional load at a time, which causes a great deal of expense doubling through at nighttime, when the train consists of 8 to 10 carloads. Our average cars per train for the last 12 months has been 6 cars. Thus you can see the extra expense incurred by reason of the municipal restrictions. In some instances the municipalities object to the movement of freight cars at any time during the day. This handicaps our movement and causes additional expense by reason of being obliged to pass through these corporations during the night. It is therefore necessary for us to maintain a day and night force in order to handle the business, both in train service and station service, adding as you will see very materially to our operating expense. We believe we should in some manner be relieved from these restrictions and added expenses.

During the year 1918 we handled 1,316 carloads. During the year 1917, 1,717 carloads. This was straight carload business and does not include the L. C. L. business, which is loaded and unloaded in our freight houses, but consists of solid carloads, loaded by consignor and unloaded by consignee to and from the cars. You will note from the above figures a decrease in the carload business of 401 cars for the year 1918, and has continued on a decline to the present date, due to the decrease in production of the various

factories that were served and the motor-truck competition. At the present time we are confronted with motor-truck competition between almost all points which are local to our line, and while at this time the motor trucks have not proven a success, they have been the means of depriving us of many carloads of business. From this competition I believe we should have some relief. Just what the remedy is to be I am only able to suggest, namely:

Any truck line doing a transportation business for profit should file a tariff and pay an additional license for the privilege of so doing. The public roads are free, of course, for the public, and no taxes can be legally imposed for the use of same, but this truck service is fast wearing out the roads for which the public are taxed, and they are contributing nothing whatever to its maintenance, but a license tax would, to some extent, contribute to the same.

The steam roads should be induced to advance their interstate passenger rates, which would entitle the interurbans to advance their rates. The steam roads are, as I understand, operating a passenger service at a loss, and the deficit is being made up in part from freight earnings and the balance finally to be paid by the Government or taxpayers. The interurban roads should be relieved of cost of new paving and repairs to paving. There should also be some legislation to relieve the electric railways and for that matter the steam lines from the tremendous financial burden from crossing accidents, most of which are due to carelessness of the public operating motor cars and other vehicles.

Trusting the suggestions herein named may be of some assistance to you, I remain,

Yours, very truly,

(Signed)

THE WESTERN OHIO RAILWAY Co.,

F. D. CARPENTER,

President and General Manager.

You will see the immense amount of business that they do in certain towns.

Here is a letter from the Cleveland, Southwestern & Columbus Railway, which I will treat in the same way. I have a map of the road with that.

JULY 19, 1919.

MR. CHARLES L. HENRY,

President Indianapolis & Cincinnati Traction Co.,

New Willard Hotel, Washington, D. C.

DEAR MR. HENRY: In reply to your communication of July 16, permit me to inclose you two maps of our road. The territory outlined in green is a very good dairy country, and practically all of the milk produced goes to the city of Cleveland. The red line shows some of the minor dairy farms, the product of which practically all goes to Mansfield.

We handle on our road over fifty thousand 10-gallon cans of milk per month. The rate on this milk is fixed by the Interstate Commerce Commission and the public-utilities commission at 18 cents per can for a 10-gallon can over an average distance of 25 miles. This rate compels us to return the empties free.

The milk has to be carried at certain hours of the day. The convenience of the shipper in getting his milk to the stands and getting the milk into the city before the heat of the day, are factors which we have to take into consideration, and provide service accordingly.

In addition to the above, we handle a large quantity of cream, which is not on daily shipments and which, according to the public-utilities commission, we are compelled to handle at the same rate that we handle milk; the injustice that we complain of in this respect is, if we lose a can of cream we have to pay the price of cream for it, while handling it at the milk rate.

We also handle over some of the territory referred to, into Cleveland alone, approximately 105,000 dozen eggs per month, and 40,000 pounds of butter per month.

We undoubtedly could increase the business in dairy and farm products if we were not limited in equipment, which at the present time we are unable to procure on account of limitation of our finances.

With kindest personal regards, permit me to remain,

Very sincerely, yours,

—————, *General Manager.*

Commissioner BEALL. That road has not done very well?

Mr. HENRY. No; and there are a good many reasons for it.

Commissioner BEALL. Yes.

Mr. HENRY. I can tell you more that have not done very well, too.

Commissioner BEALL. Yes.

Mr. HENRY. But, in a business way, they are serving the communities, and that is the subject I am on now.

The Indiana Railways & Light Co. is a road running into and out of Kokomo, both ways; and I have a letter from them on the same subject:

INDIANA RAILWAYS & LIGHT CO.
Kokomo, Ind., July 18, 1919.

MR. CHARLES L. HENRY,

General Manager, Indianapolis & Cincinnati Traction Co.,

New Willard Hotel, Washington, D. C.

DEAR SIR: Having been informed that you will present the cases of the interurban companies to the Government commission appointed for the purpose of investigating the present financial condition and future prospects of such interurban properties, we desire to acquaint you with the location of the Indiana Railways & Light Co. and as far as possible with the service it performs to the public in general, which information we hope will be of some assistance to you in presenting the deplorable condition of the industry to the commission.

For the reason that the financial condition of the steam and electric railways of the country is so well known, we will omit any further reference to this phase of the matter.

The Indiana Railways & Light Co. operates an interurban railway between the cities of Frankfort, in Clinton County; Kokomo, in Howard County; and Marion, in Grant County; all in Indiana, a distance of 52.8 miles and the line parallels the Toledo, St. Louis & Western Railroad, almost the entire distance and connects with the Terre Haute, Indianapolis & Eastern Traction Co. at Frankfort, the Union Traction Co. of Indiana at Kokomo, and the Union Traction Co. of Indiana and Marion & Bluffton Traction Co. at Marion.

The first operation of an interurban line by this company was performed in 1903 from Kokomo to Greentown, Ind., a distance of 10 miles, and this line was extended in 1905 from Greentown to Marion, a distance of 18 miles, and the line was further extended in 1912 from Kokomo to Frankfort, a distance of 26 miles, and since 1912 there have been no extensions and none are anticipated.

These lines traverse a rich farming territory and serve three incorporated towns and eight unincorporated towns and villages, in addition to the three cities named, and the frequent service of interurban cars enables the laborers of the intermediate towns to take up employment in the three cities named, which are largely manufacturing centers.

The farmers along the line have frequent service to and from their nearest public-highway crossings, both passenger and freight, and have always been favored by special service in emergencies. As an example: In January and February of 1918 when the demand for stock cars in the South by the Government for war purposes compelled the railroads of this territory to embargo shipments of stock for lack of cars, this company arranged to transport the hogs and cattle to the Indianapolis market with its freight equipment and in the meantime, using improvised methods to perform service to those depending on the freight service along its line.

Arrangements were quickly made with the Union Traction Co. of Indiana, Indianapolis Traction & Terminal Co., and Terre Haute, Indianapolis & Eastern Traction Co. for the use of their tracks and also with the farmers and stock buyers along this line; and by running the train of three cars night and day, making two round trips per day, we were able to relieve the situation to the extent that 9,000 head of livestock were marketed by reason of the operation of the train on 44 trips from points along the line to Indianapolis, an average distance of 80 miles. The farmer was permitted to load his stock at any point along the right of way, and the charges for transportation were very little in excess of rates for steam-road service.

Many similar instances of minor nature might be mentioned, where this interurban railway has relieved the stress of circumstances in such emergencies and at no great profit to itself and, for the fact that it is not built or equipped for extensive carload business, at a great inconvenience to itself and a part of the public in general.

However, this instance of helpfulness has been greatly appreciated by the farmers and citizens in general and the company was given favorable commendation by the local newspapers along the line, in many articles concerning the relief obtained.

For many years the paralleling steam road passenger service has been very inadequate to the needs of the public in this 53 miles and so far as passenger service is concerned, this line is a necessity as great as if no parallel line was in existence and is a valuable adjunct to the life and growth of the communities which it serves in many ways—one of the most important being that all of the smaller towns receive lighting and power service, they being a part of the 23 towns outside of Kokomo receiving such service, a great many of them being some miles from the line; this being made possible by the fact that current is taken from the railway high-tension lines at frequent intervals for transmission to other localities entirely off of the line and these branches provide power and lights for farmers along about 100 miles of highway.

It would appear that this interurban line, with its various methods of serving the public, so intermingled that the disposal of one means of the non-success of the others, is indispensable so far as the public welfare is concerned, and for this reason should be allowed to exist and after paying reasonable wages to its employees, as other industries are permitted to do, and after paying all expenses incident to the proper operation of the property, should be permitted to pay its stockholders a reasonable return on its actual valuation.

The company also operates 8 miles of city car lines in Kokomo and there have been no additions to the tracks of these lines since 1902 and since that time there has been no change whatever in the charges for the transportation of the public over the lines, and in the meantime public opinion has compelled a change from single-truck to double-truck cars, at a great expense, and the cost of labor and material has increased entirely out of proportion to the number of passengers carried; and while Kokomo has in this period grown from a city of 7,000 to 28,000, at present it has not had a foot of track built for the purpose of transporting the public, many of whom now live far beyond the present lines, and these must walk as far as they can ride in their trips to and from the center of the city.

This condition is deplorable and is a hindrance to the further growth of the city and is practically the same condition as exists in hundreds of other cities in the country and there are reasons for such conditions, very well known to those who might have observed in the past, not the least of which is the continual regulation of income by State and municipal officials, without in any way attempting to consider the expenditures incident to the operation.

This company can not extend its lines to suit the needs of this city for the reason that sane men will not invest money in a hazardous industry, in which facts obtained from past and present conditions indicate that there can be no reasonable return on actual valuation and with present conditions and the outlook for the future there can be but very little hope that circumstances surrounding such public utilities will become improved to the extent that they may again take their position on the same plane with private industry and in the meantime the public must suffer the inconvenience brought about by the lack of adequate efficient service.

Our experience has taught us that it is not the public in general that object to these public utilities being allowed to earn a reasonable return on valuation after paying a reasonable wage to its workers and other operating expenses, but that it is one of those who claim to represent the public in some political office or position, and usually all of his efforts for their benefit are directed toward public-service corporations and without a thought of the future, or of any phase of the matter not beneficial to his constituents.

This condition, however, is being gradually relieved by the various public-service commissions, but the outlook for that radical improvement necessary to stabilize such industries is in no sense encouraging.

For these and many other reasons, not only the public should be fully informed, but public officials should by some method be educated to consider both sides of the matter of utilities, which must serve their constituents and there

must be that degree of fairness on all sides that will breed confidence if such utilities can supply the needs of growing communities and expand to other communities which are in crying need of them.

Yours, very truly,

C. P. RYAN, *G. P. & F. A.*

Here is a letter from the fruit district in the southwest part of Michigan:

BERRIEN COUNTY BANK, *July 17, 1919.*

MR. JAMES H. POUND,
Benton Harbor, Mich.

DEAR MR. POUND: In reply to your request of this day, relative to the letter of Mr. Charles L. Henry, I beg to advise that the Millburg Fruit Growers' Association last year shipped approximately 30 carloads of fruit and had shipped in 14 carloads of supplies; that the Benton Center Fruit Growers' Association shipped approximately 38 carloads out and 20 carloads of supplies in.

You will appreciate, of course, when you make a comparison of these figures with previous years, that the fruit crop was practically a failure; during the year of 1916 the Millburg Fruit Growers' Association shipped 183 carloads of peaches alone over your line. While the crop this year is not so large as during 1916, nevertheless we are expecting that shipments from these two points on your line will more than double last year's record.

I am frank to say that if it were not for your line in connection with these two points, which as you know I am vitally interested in, the market for fruits would be much less than at present.

Trusting that this is the information desired, I am,

Very truly, yours,

JAS. M. ROSE, *Cashier.*

The CHAIRMAN. Mr. Henry, would you not have a right to assume that this commission regards the electric lines as a necessary institution, and that we are disposed to do all we can to help them out in their difficulty?

MR. HENRY. All right; I do assume that, but I do assume that possibly some members of the commission need to be enlightened on the subject of the great advantages which we give the communities over and above what the steam roads give them. That is the only point that I thought there might be some doubt about.

I want to read here a letter from the Ohio Electric Railway Co.:

THE OHIO ELECTRIC RAILWAY CO.,
Springfield, Ohio, July 19, 1919.

MR. CHARLES L. HENRY,
New Willard Hotel, Washington, D. C.

MY DEAR MR. HENRY: Mr. Dana Stevens, vice president of this company, has referred your letter of the 15th instant to me, in which you asked for a statement from the traffic manager of this company with reference to the extent of its merchandise-freight business and the manner, especially the expedition, in which it is handled.

In response wish to advise that this company operates 510 miles of inter-urban track over which freight business is handled, and the total gross freight revenue for the year 1918 amounted to \$613,052.32.

Merchandise freight is handled in the territory between Fort Wayne, Union City, and Richmond, Ind., and Lima, Defiance, Toledo, Dayton, Springfield, Columbus, Newark, and Zanesville, Ohio, over this company's line. Shipments received during the day at Toledo and Fort Wayne on the one hand, and Dayton, Springfield, and Columbus on the other, are forwarded in the evening and reach destination the following morning, making an over-night delivery for L. C. L. shipments.

In addition to this service, solid merchandise cars are handled between all the larger points on the line. For example, Columbus will load cars for Zanesville, Newark, Springfield, or Dayton. When these are loaded to their full capacity before the schedule time of our regular freight trains, they are

coupled to one of our local passenger cars and handled through to destination on passenger-train schedule. Shipments from commercial centers to near-by points within 30 or 40 miles are delivered within a few hours after receipt.

This quick service when first inaugurated created quite a little fear in the minds of merchants at the smaller towns and villages that their business would be absorbed by the merchants at the large centers. This fear, however, has proved groundless, and instead it has really been a benefit to them in this way: That it has enabled them to conduct their business with a reduced stock, as sales can now frequently be made from selection from catalogues where otherwise the stock would have to be carried on the floor.

On rush orders the merchant can telephone to his jobber and frequently have the article in the hands of the purchaser the same day or, at the furthest, the next morning. As far as the matter of time is concerned, freight shipments over our line make as good and frequently better time than those handled by the express company.

I trust that this information is what you desire. Should you wish anything further along this line, kindly advise.

Yours, very truly,

W. S. WHITNEY, G. P. & F. A.

Detroit is a large city, and I want to read to you a statement of a disinterested outsider on that subject, and then leave the papers here.

This is from the Detroit Wholesale Merchants' Bureau:

Detroit, July 18, 1919.

MR. W. S. RODGEE,

General Traffic Manager, Detroit United Railway, Detroit, Mich.

DEAR SIR: The question was recently asked how the wholesaling interests of Detroit were affected by the freight service given by electric lines running from this city to points in Michigan and Ohio. In answer to that question, I believe that I can safely state that 70 per cent of the shipments from wholesale houses in Detroit go out via electric lines. As a result Detroit wholesalers are vitally interested in service given by electric railroad lines in this section of the country.

The electric lines give the wholesalers second or third-day deliveries to all points within a radius of 100 and 150 miles. As a result of this they have saved the wholesale interests of the city thousands of dollars in business. Many accounts would have been lost had the wholesalers depended upon deliveries by the steam roads running out of the city.

The electric lines have repeatedly saved the day for various business interests of the city. This was particularly the case during the extremely cold weather of the winter months, and at other times when the railroads had proved their inefficiency in handling L. C. L. shipments.

The wholesalers of Detroit have found it to their advantage to ship their goods via the electric lines wherever the electric company is in competition with the railroad.

It would indeed be a serious blow to the wholesaling interests of the city should anything happen to curtail the service given by the electric lines. We believe that financial assistance should be given to these companies and everything possible should be done to maintain a high standard of efficiency in this very important link of our country's transportation system.

Very truly, yours,

WHOLESALE MERCHANTS' BUREAU,
W. E. WILINGSON, *Secretary.*

I have a map of their line also.

The Louisville Traction lines are a little different from the rest of the interurbans down there. They run in and out in that form. [Illustrating.] They look like snakes almost, only short distances out, and I will not take up any time to say anything about them.

Now, then, what is the trouble? That is what you want to hear about.

In a general way, the interurbans have no serious troubles with the exception of the general situation. That is, we are not hampered by franchises to any large extent. We are to a certain extent.

For instance, take the city of Indianapolis, which will illustrate one of them. I read to you there a letter about how much stock one shipper brought into Indianapolis. There is a clause in the franchise in Indianapolis that no live stock shall be shipped in by an interurban. Only recently they allowed them to start. That was during the war, when the steam railroads broke down in their service, and that was the only way they could get stock in. Since that it has been going along, and I do not suppose it will ever be stopped again.

Commissioner BEALL. Is that statement quite correct? Is it not a fact that the Northern Ohio Traction Co., for instance, has been hampered in its business for quite a number of years on account of the franchises?

Mr. HENRY. Yes; I was speaking generally.

Commissioner BEALL. And other lines have many difficulties.

Mr. HENRY. Yes; there are a great many difficulties of which I will speak. Mr. Carpenter's letter and Mr. Schneider's letter both refer to those things.

Commissioner BEALL. But you said a little while ago that they had no franchise troubles.

Mr. HENRY. Well, perhaps my remark was too general in its form.

Commissioner BEALL. Yes.

Mr. HENRY. There are a great many places where the handling of freight is restricted to one car, sometimes two cars, and sometimes to three cars. They are bothered about the through business in that way. The Ohio Electric Co. is bothered very much about that. That is the largest company in Ohio. They are bothered very much about it, and the trouble is to get a continuous acting business on account of these various things.

Even in Cleveland they do not allow freight cars to run in. They call them express, whatever they take into Cleveland. They do not allow freight cars to run in.

Then, there are also the provisions regarding paving that you have heard so much about here during the hearings. Those apply in nearly all of these small towns. In nearly all of them they have just that kind of a provision. Personally I have only signed one contract of that kind, and that was a renewal of one, which necessitated it. I thought it better to do that than not to do it; but I never believed in signing them. There are lots of them in existence, though. I might say that the first interurban contract that I ever made with that town provided also for the handling of freight, that of Alexandria; but there are a lot of these franchise restrictions.

For instance, in regard to what it termed the State highways that the Government is assisting in: There are provisions in there for the paving of the part of the street where the railroad is, and in many towns and villages that will apply. That will require the elimination of a great many grade crossings that otherwise would not have to be eliminated, because there was no necessity for it; but everybody recognizes that with the travel on these proposed paved highways, it will be so great that it will require the elimination of a great many grade crossings. Now, if that is carried to the extreme, as it looks like it will be, that practically extinguishes the ability of the interurban roads in many places to do anything. While they are doing that, alongside of them are the gasoline trucks, their best competitor. In other words, the gasoline runs along without any control, without any

sort of arrangement with the public-service commission or any other public body, right straight alongside on the road which we are helping to pay for. We get it both going and coming that way, you know. We can not miss it.

Now, I want to call your attention to one thing in connection with this trucking business. Just before I came over here, I was handed a copy of the United States bulletin, issued on July 14, 1919, which I think is very interesting:

LARGE RURAL MOTOR EXPRESS COMPANY FEARS OPERATIONS OF SO-CALLED WILD CAT LINES.

The highways transport committee of the Council of National Defense authorizes the following:

The general manager of a new rural motor-express company in the northwest submits some very interesting ideas to the highways-transport committee in connection with the operation of motor apparatus for commercial purposes, and this committee is glad to pass them along to the big and rapidly growing family of highways-transport committee enthusiasts throughout the country.

This company is preparing to cover a pretty big territory with a complete system of rural motor-express routes. In this connection its executives have made a study of the various angles of this work and apparently seem to have developed the practical end of it most satisfactorily.

WILDCATting OBJECTIONABLE.

However, one very pertinent subject is suggested, and that is the possibility of a few individuals who might attempt to haul freight from a large city to towns 30 or 40 miles away for a sum per hundredweight which would make it impossible for one operating a route regularly and on fixed schedule to meet such competition. The suggestion made is that a continuation of such practices, wildcatting, as it were, in the motor-transportation field, tends to discourage the entrance into this field of those who would seek to serve the public regularly and satisfactorily, and at a cost to the shipper of just enough to make a venture financially profitable.

QUESTION FOR STUDY.

This question is then asked:

"Is there not some way that an honest company, which will maintain schedules and protect shippers against loss in transit, can be protected against operators of the character suggested above?"

The highways-transport committee believes this question is one which State highways-transport committees may very well and profitably take up for study.

Any views had on this subject by State highway organizations, or by anyone else, would be welcomed by the highways-transport committee of the Council of National Defense.

Now take that and apply it to the interurbans. It tells its own story. It is rather remarkable that at this early day in the development of trucking that they should have to issue such a circular as that. We do not ask you to do away with the truck hauling by motors, but we do think they ought to be under the same kind of regulation and restrictions that we are under.

Mr. WARREN. They are like the jitneys, I suppose, are they not?

Mr. HENRY. They are worse; that is all. The jitneys are lice, and these are full-grown animals. [Laughter.]

There is no reason why this sort of wildcatting, as this gentleman calls it here, should be permitted to go on uncontrolled, and I am glad to know that some fellow going into the truck business has seen fit to call attention to it. It may bring about important results. It is one of the things that you gentlemen ought to take into considera-

tion and take such action as you may think is best in regard to it, because it amounts to a great deal.

Now, gentlemen, Mr. Hill here gave me a memorandum yesterday. I think you will hear him in person. It is about the Pacific slope, and I am not going to say much about the Pacific slope.

The Pacific Electric Co. is losing \$1,400 a day, \$500,000 a year, from jitney buses doing country business. Now, you may call them interurban jitneys, if you want to. They are absolutely uncontrolled.

In San Francisco the jitneys were uncontrolled absolutely until the city-owned property—it is not city-owned, broadly speaking, but the city built it on Market Street, and when the city built its lines up Market Street, it excluded from Market Street the jitney, but it could not see fit to do it when the privately owned company was operating on Market Street—and there was no relief given against the jitney in San Francisco until the city constructed its line. Then it tried to protect its own line without giving any protection to its other properties.

The CHAIRMAN. Do you think the Council of National Defense would be as anxious to promote reasonable regulation of the trucks as it has been in selling them?

Mr. HENRY. Do you want me to answer that?

The CHAIRMAN. Yes.

Mr. HENRY. I think not, because they have encouraged the selling; they have increased the selling by giving out the idea of the great things that could be done with trucking. On that point, I want to say that the interurban people of the country are not afraid of the truck competition, if the trucking business by motors is put under regulation and made to handle business like they ought to. We can take care of them all right if you will put them under regulation.

Now, so far as the general business of the interurbans is concerned, expense of construction and maintenance has gone clear out of sight. It is fair to say, and we say it frankly, that in our section of the country, where the interurbans are in fairly good shape and where the commissions have taken care of us as best they could in the matter of the increase of rates, our receipts at this time are fairly promising, quite promising, but the expense of operation is still going up. For instance, in the last 60 or 90 days there has been an increase of about 10 per cent in wages—a thing which was wholly unlooked for when the armistice was signed.

The CHAIRMAN. Has the National War Labor Board made any wage adjustments for your lines?

Mr. HENRY. The National War Labor Board?

The CHAIRMAN. Yes.

Mr. HENRY. Will you permit a strong expression there? Thank God, they stayed away from us. We did not have to go to the War Labor Board. We were able to take care of wages in a fairly satisfactory manner, owing to the suitable conditions with which we surrounded our men.

The CHAIRMAN. But I presume that the adjustment which they made for the street-car lines and which the Director General made for the steam railroads has had its reflection in increasing the costs of your companies.

Mr. HENRY. Yes; it did have. For instance, we have to pay a dollar and a quarter for ties that we could get for 90 cents if it were not for the regulation of prices by the Railroad Administration. They bought 35 or 40 of them, and they put a price on them, and that is the price that they charge us when we want more of them.

They are paying trackmen \$3 a day at a minimum, while we have our men working right across the fence, and they were working contentedly and happily at \$1.83, when this commenced. Since then, we have put our wages up to \$2.50, and finally to \$3 a day. Those are the things which have helped us. The Railroad Administration and the outgrowth of the war has helped us in increasing our operating expenses all along the line. That is the history of it.

Another thing that I want to call your attention to is this: I have a letter here from Mr. Faber, of the Aurora, Elgin & Chicago Railroad Co., which calls attention to a matter which is very pertinent. They started out to increase passenger rates. They came to the suburban rates, which had always been ridiculously low for a long number of years. I will not say "always," because I have not lived always, but for a long time.

This is not a long letter, and it tells the story quite straight:

THE AURORA ELGIN & CHICAGO RAILROAD CO.,
Aurora, Ill., July 21, 1919.

MR. CHAS. L. HENRY,
President and General Manager, Indianapolis & Cincinnati
Traction Co., Indianapolis, Ind.

DEAR MR. HENRY: Permit me to suggest that, in your remarks before the Federal Electric Railway Commission at Washington on Wednesday, you call operating out of the so-called metropolitan districts, where the electric roads find themselves in an absolutely helpless condition as a result of the ruinous competition in suburban passenger rates established by the steam railroads on their so-called commutation and multiple-trip-ticket rates.

You are very familiar with the condition of the electric interurban railroads of the country to-day, particularly with respect to the competition of the steam lines, where the rates are 3 cents per mile.

What I want to particularly call your attention to, in addition to the conditions with which you are familiar, is the ruinous competition of the extremely low rates on suburban multiple-trip-ticket rates in effect on the steam railroads. The rates charged by the steam railroads on commutation business are, in some instances, as low as 0.4 cent per mile. The 25-ride tickets, good for one year and good for bearer, are sold at from 0.9 cent to 1.35 cents per mile. These tickets are scalped by storekeepers and others, and are generally used by occasional riders in the communities served, and therefore establish the going rate paid. This business is not only done at a direct and substantial loss to the steam railroads, but prescribes and limits the rates of the electric interurbans, and results in a return of less than cost to these lines, and therefore to a confiscation of their earnings and properties.

Attached herewith please find a few letters taken from my file, from which you will note that on May 27 Traffic Director Chambers advised that Director General McAdoo had instructed that a careful study be given these rates at once, with the view to placing them on a consistent and reasonable basis, and for that purpose a committee was subsequently appointed, with Mr. Smith, of the New Haven road, as chairman.

On June 17, 1918, a conference of the Inter-Regional Passenger Committee was held in Chicago, for the purpose of standardizing suburban fares, and the writer appeared as representative of the electric interurban roads. A further conference of this committee was held in New York City, and on July 12 this committee recommended a uniform rate per mile for 54 and 60-ride monthly tickets, and that all forms of trip tickets be removed from sale, except a 25-ride family ticket, good for 90 days, to be sold at the rate of 2½ cents per mile.

Director Chambers approved the recommendations, with the exception that he decided it was inexpedient to change the rate on 54 and 60-ride individual monthly tickets and that the rate to be charged for the 25-ride tickets was changed from 2½ cents per mile to 2 cents per mile. In this form the recommendations were approved by the Railroad Administration, and the effective date of the new rates was fixed for February 10, 1919.

As a result of the announcement in the Chicago newspapers of the change in suburban rates, the State attempted to enjoin the administration from making the new rates effective. In the meantime, the question of State rights with respect to the fixing of intrastate rates for telephones and railroads was raised in a number of States, and the administration decided to hold up the commutation rate matter until the Supreme Court of the United States decided definitely the question of whether the administration or the State had the power to fix intrastate rates. The Supreme Court recently unanimously decided that this power was vested with the administration. I have been informed that the steam railroads have requested some modification in the Government order as proposed, and that the final recommendations are now before the administration at Washington. In the meantime, the electric lines are unable to obtain relief through increased rates to offset the advanced cost of operation.

The effect of these extremely low suburban multiple-trip ticket rates upon the electric lines serving the same territory is to limit the price of transportation over their lines and forces them to do business at rates that spell disaster.

There is some hope, through the obtaining of relief through increased rates, for the local street-railway properties in large cities where distances are such that most of the people must ride. There is no relief that I can see for the electric interurban roads if the competing steam roads are allowed to continue to furnish passenger service at rates which are admitted by them to be much below their out-of-pocket costs, regardless of investment, taxes, etc.

During my work at Washington, as manager of the American Electric Railway Association War Board, I had opportunity to see a report covering the cost of operating the suburban-commutation business operated by the steam railroads in the Chicago district, prepared by Mr. C. F. Balch, statistician of the Chicago & North Western Railroad. This report shows:

Gross revenue from transportation for year ended Dec. 31, 1918.	\$6,251,609.54
Transportation expenses and maintenance of equipment expenses (commonly known as out-of-pocket expenses)-----	1,569,422.76
Total operating costs amounted to-----	7,936,766.96
Net revenue (deficit)-----	1,685,157.42
To this deficit should be added—	
Estimated taxes assignable to suburban traffic-----	337,614.69
Rental of property used in suburban service-----	3,853,929.15

From these figures, the amount of gross revenue which it would be necessary to derive from suburban service to make it remunerative as all-rail traffic conducted by class 1 railroads in the western district in 1916 would have to be \$12,128,310.80, or about double the amount that was actually derived from this class of business, viz, \$6,251,609.54.

The Federal Electric Railway Commission could be helpful in this matter by urging the administration to act promptly and establish these suburban multiple-trip-ticket rates upon a basis that would recognize the cost of the service and a fair return upon the investment in the property.

Very truly, yours,

EDWIN C. FABER,
Vice President and General Manager.

P. S. Please return the inclosed papers for my files after they have served your purpose.

E. C. F.

Now then, they raised it 10 per cent, and they stopped at that. They put the steam roads' passenger rates up to 3 cents, but they raised the suburban rates 10 per cent, and left them so low that neither the steam roads nor the electric roads can do business and make any money. They can not do it. We have not anything of that kind at Indianapolis, but that is the situation there.

Mr. WARREN. Mr. Henry, do you know about the railways in the small towns, as to what their condition is?

Mr. HENRY. The electric railways?

Mr. WARREN. Yes.

Commissioner BEALL. Do you mean the interurban roads?

Mr. WARREN. Well, I mean others.

Mr. HENRY. You mean giving local city service?

Mr. WARREN. Yes.

Mr. HENRY. In small cities?

Mr. WARREN. Yes.

Mr. HENRY. Yes, sir; I know a great deal about them.

Mr. WARREN. Will you tell us about their condition?

Mr. HENRY. Their condition is worse than any others, than those in the larger cities. The conditions have hurt them worse. The expense of operation has run high. I do not know any of them in any of the small cities, in the interurban field, which I have been talking about, which is making any money. They are like the interurban roads, about which I was going to tell you, that on account of the conditions which I have cited, there is not an interurban road in our section of the country, and I do not think in any other section, that is paying a dividend on its stock, either preferred or common—not one of them. They are trying to live through these conditions and do the best they can, and some of these things I have spoken to you about are permanently existing. They are not just for the day. They have all of these burdens that you have heard about for the last couple of days. There is no reason to-day, and there never was, in my opinion, which I will state—I am an Irishman, and I have a right to state my opinion—in my opinion there never was a reason, and there is not now any reason, why any charge—and that is as broad as I know how to make it—to be put up against an interurban, or city line for that matter, but I am speaking about interurbans, except the cost of carrying the passengers and the freight and express business. There is not anything, gentlemen, that is so absolutely necessary to the prosperity of this country as transportation. We can not exist without it. The cities and towns of the country have not learned to appreciate what might be done, even in the use of interurbans. These interurban cars ought to be allowed to run right into their market houses, with the produce of the country for a hundred miles around, and cut out all of the charges for trucking and drayage and everything of that kind. It can be done just as easily as not, and it should be done. That is one of the things that should be done to help the business and to help the community.

Now, there is not any reason why anything more should be charged against the man who is riding on our line or shipping goods on our line, or shipping express on our line—anything at all, for only the cost and the reasonable profit to do that business. Why? Why? You take it in the cities. The merchant may ride down town, if he wants to, in his limousine, but his customers are going down on the street car. That is the way it is. The man from the country may ride in alongside of the interurban road to Indianapolis to trade or to attend to business, or anything of that kind, but the mass of the people are going to ride on the interurban cars, and they do ride on them right along, constantly.

You heard something said here yesterday, I believe it was, about the decrease of business. We had a striking illustration of that. Our fares were put up to $2\frac{1}{2}$ cents a mile in the last few days of January of last year. I kept an accurate account, a distributor's account, of every day since then. Our business began running down in the number of passengers—down, down, down, down, and down, and I couldn't understand it; and when Mr. McAdoo put the railroad fares up to 3 cents, I said, "Now, we will see how our number of passengers will increase." That was put on on the 10th of June, last year, and the following month, in July, it showed the greatest loss in the number of passengers on our line that we had ever had at any time—25 per cent of the number of passengers as compared with July of the year before.

Now, that was not attributable to the fares. It is attributable to two or three things besides the rate. In the first place, the people had made up their minds to save their money; they were not going to spend their money unless they had to, and that is the reason that they stopped riding a great deal. The other was that the flower of the country, the young men of the land, had gone into the Army. They constituted the moving part of the population very largely. That was another thing which really cut down the number of fares. Since then, since the close of the war—I mean the real close of the war; I do not mean the theoretical close of the war—since the real close of the war, they have been coming back gradually, and our business is increasing constantly, all the time. Now, under a 2 or 3 or 4-cent fare, as against a $2\frac{1}{2}$ -cent fare a year ago, we have just the 10 per cent increase, and our passenger business shows an increase of over 20,000,000 last year. So that about as much is coming from old business, coming back, as well as the increased fare.

MR. WARREN. How does that traffic compare with that of two years ago?

MR. HENRY. In number of passengers?

MR. WARREN. Yes.

MR. HENRY. It is still less than it was two years ago.

MR. WARREN. But not very much?

MR. HENRY. Not so much less.

MR. WARREN. So that there is a decided increase in revenue?

MR. HENRY. Oh, yes; the increase in revenue is very good. We did not ask the commission to allow us to charge a 3-cent fare. We asked for a $2\frac{1}{2}$ -cent fare, but that is what they gave us.

MR. WARREN. Have you any doubt that a reasonable increase would permanently increase your revenue account?

MR. HENRY. There is no doubt about it.

MR. WARREN. So that you are not afraid of the effect of increased fares?

MR. HENRY. No, sir; we are not afraid. We put in a $2\frac{1}{2}$ -cent fare in July, 1917, in the face of the 2-cent law on the statute book regulating the steam roads.

MR. WARREN. And you did not lose any more then than you did after the 3-cent fare went into effect?

MR. HENRY. No; we lost more when it came to the 3-cent on the steam roads than we did before.

MR. WARREN. Mr. Henry, the other day a question was asked of one of the witnesses whether the street railways had considered—

the city roads now, and I suppose you are pretty familiar with the city system in Indianapolis?

Mr. HENRY. Yes; I know a good many of them.

Mr. WARREN. Would there be a material increase from revenue by doing city express business? What do you think about that? I am not speaking of the interurbans.

Mr. HENRY. That would depend a great deal on the way the cities are built, how compact, largely. The less compact, the more need there is for that kind of business. The more compact, the less need there is, because of the short distances; but I think in almost every case, very much could be done on that.

Mr. WARREN. It would necessitate some sort of a freight terminal on each line, would it not; either that or wagon delivery?

Mr. HENRY. Yes, it would, but I think it could be worked out very largely without very much building in many places.

Mr. WARREN. You think that is a thing they may do?

Mr. HENRY. I do. I think the street railway must look, perhaps not to as great a degree as they should, to the income from freight and express, but there is no reason at all why the street-railway car should not pull a trailer hauling anything that is hauled in a truck alongside of it. If there is, I never could find a reason for it.

Mr. WARREN. Except that the truck can go to the sidewalk, and the trailer can not.

Mr. HENRY. Yes; it can do that, but I am not talking about the inconvenience of the people.

Mr. WARREN. Oh!

Mr. HENRY. So far as the convenience of the people is concerned, that does not mean so much.

Mr. WARREN. No; I do not mean that, but I mean as a revenue producer, whether the company could make much net money out of it.

Mr. HENRY. I think in large cities it could, but in small cities, no.

Mr. WARREN. Yes?

Mr. HENRY. That would be my notion about that.

Mr. WARREN. Do you know of any cases where street-railway cars, as I understand they do in Grand Rapids, carry a mail box?

Mr. HENRY. Yes, they do there, and I happen to know that they do in Des Moines, Iowa, simply from the fact of my daughter's being out there as an aide in the hospital, I know about that. I know about those two places.

Mr. WARREN. So that letters can be dropped in the box on the car?

Mr. HENRY. Yes; dropped in the post-office box on the car.

Mr. WARREN. Do they have any of them on interurbans?

Mr. HENRY. No, sir.

Mr. WARREN. These interurbans, Mr. Henry, are built largely in the highway?

Mr. HENRY. No, sir. Originally they started to build them on the highways, but they soon disregarded that; they discovered that it was a mistake, and they are now largely built on private rights of way.

Mr. WARREN. And where they are built on the highways, they are usually built outside of what we call the worked portion of the highway?

Mr. HENRY. Yes; and whenever the highway is wide, for instance, like the old national road built across the country, a hundred feet wide—and I might say that that is theoretical—but they are not any more; the honest farmer has encroached on them; they are built clear outside of it, from the traveled highway. We have a road 10 or 12 miles on the old Michigan right of way, which is theoretically a hundred feet wide, and we are outside of the side ditch of the highway, even, and there are some places where, on the highways—

Mr. WARREN. Where they approach villages?

Mr. HENRY. Yes; they have to do that where we go through the streets of villages.

Mr. WARREN. But the great percentage of their mileage—

Mr. HENRY. Oh, a large part.

Mr. WARREN (continuing). Is ordinarily on the highways; they are built alongside of it?

Mr. HENRY. Yes.

Mr. WARREN. But they are on private right of way, are they not?

Mr. HENRY. Yes, sir; we have 41 miles of road from Indianapolis to Rushville. That is not on the highway after we get away from the suburbs of Indianapolis. We even have our private right of way through the little towns, and then beyond Rushville, 20 miles farther, it is the same way.

Mr. WARREN. As I understand you, none of these companies at the present time are paying their dividends.

Mr. HENRY. No, sir; we do not know what a dividend is, Mr. Warren.

The CHAIRMAN. How long has that condition lasted?

Mr. HENRY. Well, with our company it is bound to exist until we get our road completed to Cincinnati; that is, we do not expect to pay dividends until we get there. So that is out of the question, as far as dividends are concerned, but with most of the companies the dividend on preferred stock was paid four or five years ago.

Mr. WARREN. They all had to stop?

Mr. HENRY. Yes.

Mr. WARREN. Are they earning fixed charges and their interest?

Mr. HENRY. No, sir; they are not all. In Indiana they are mostly and in Ohio, and so forth, but they are not all of them earning their fixed charges. There are some roads that are not. Most of them now are. Our condition is better under the increased fares than it was before.

Mr. WARREN. And what further—

Mr. HENRY. Mr. Warren, will you allow me to interject a remark right there?

Mr. WARREN. Yes, sir.

Mr. HENRY. In Illinois the condition is peculiar. Our public-service commission held, and I guess rightly so, that they had no right to raise the fares above the statutory limitation; so the roads in Illinois, all of them, went to charging 3 cents a mile; and it went into the courts, and they enjoined the public authorities from interfering with them, and they are operating on 3 cents a mile in that way. That is a peculiar condition in Illinois.

Commissioner SWEET. What has been your experience with regard to patronage?

Mr. HENRY. Do you mean out there?

Commissioner SWEET. In Illinois.

Mr. HENRY. They claim they have done well by it. They have lost very little patronage. Nobody will claim that an increased fare does not do any injury to the roads. It always does some.

Commissioner SWEET. But going to a 3-cent fare in Illinois has not proved serious?

Mr. HENRY. No; only in Ohio. They are nearly all on the 3-cent basis in Ohio. Our State is right in there at 2 $\frac{3}{4}$ cents, and in Michigan they could not raise the fares because of local legislation. The last legislature made a provision for them to raise their fares. I can not tell you just what the arrangement was just now.

Mr. WARREN. None of your roads were taken over or guaranteed any return by the Railroad Administration?

Mr. HENRY. No, sir; but they were assured of losses.

Mr. WARREN. The assurance proved correct, did it not?

Mr. HENRY. Yes; they were assured of a loss, and they got it.

Mr. WARREN. Do you feel that a further increase of rates, an immediate increase of rates, would help you?

Mr. HENRY. In our individual case, I have some doubt about it. Our community is there; we are so situated that I would rather have to-day the 2 $\frac{3}{4}$ -cent fare. I think at this time that is the best basis.

Mr. WARREN. What are the companies doing about depreciation, Mr. Henry?

Mr. HENRY. You mean as to their account?

Mr. WARREN. Yes.

Mr. HENRY. Under the instructions of the Interstate Commerce Commission, which we follow in our accounts, we keep a depreciation account on our equipment, and nothing else. They have never required it, except on the equipment.

Mr. WARREN. Independently of the accounts, are the companies earning enough properly to take care of depreciation?

Mr. HENRY. No, sir; they are not. Our State commission—not in interurban cases, but in other public utilities of the State—fixed a sort of rule in the different hearings that 7 per cent for income and 3 per cent for depreciation, which would make 10 per cent, was right; that is, in deciding what they would allow them to charge in rate cases, they fixed that rule tentatively.

Mr. WARREN. Yes.

Mr. HENRY. But we never had any opportunity to use that rule.

Mr. WARREN. Either as regards the return or the depreciation?

Mr. HENRY. No; we did not.

Mr. WARREN. Well, the first suggestion you would make is the elimination of these local requirements which retard and interfere with your business and add unnecessary charges on your income?

Mr. HENRY. No; that is not the first.

Mr. WARREN. What would be your first?

Mr. HENRY. That is not the first, because it is not the quickest.

Mr. WARREN. What is the first?

Mr. HENRY. The first ought to be the quickest, and that ought to be everything that the Government and the State can do to help them in an emergency, in the emergency that is surrounding the roads.

One of them is the Government. The Government's administration of the railroads ought to be equitable and fair. I do not know any reason why the Government, running one utility, should run it in such a way as to cripple other utilities which are needed just as much.

Mr. WARREN. And from your knowledge of it, they are the same kind of service, at that?

Mr. HENRY. Absolutely the same general kind of service. Another thing: I listened with a great deal of interest to some of the things that have been said here in regard to the taxation question. The professor, in talking about the income tax, mentioned that. I had occasion a short time ago, in appearing before our State tax board, to argue a point with them. It does not have any bearing on this question, except that it is similar in its results, if we could get it. I contended before the State tax board, and I think rightly, that our properties had no value for the purpose of taxation, or for any other purpose, for that matter, except the value represented by their earning power. We are working under the State. We are trustees for the State. We can not quit our business if we want to. We can not fix our rates if we want to, except as the commission authorizes us. We can not even tear up our tracks, unless the commission authorizes it. So that there can be no reason, in my opinion, why we should be taxed upon a value any more than what our earning power shows at this time.

Applied to our individual case, I showed the commission, in round numbers—we were speaking about their assessment—it was \$2,000,000 as they fixed it, whereas if we applied it under the 10 per cent that I spoke of there, it should have been \$700,000 less.

Mr. WARREN. The valuation?

Mr. HENRY. Yes. Now, that may not be an income-tax proposition, but it comes to the same point.

The CHAIRMAN. Would you want to use that same basis of value for rate-making purposes?

Mr. HENRY. Well, I would say this in that connection: Our commission has never had any formal valuations of any of the properties, but they have had informal valuations of them, and in one case—I will not give the name, as I am not authorized to do it—tentatively the tax board had fixed a valuation that was \$5,000 a mile above what the public-service commission was using in its permission for the fixing of rates. That does not answer your question, but it shows how it is turned the other way.

The CHAIRMAN. I think it depends upon the extent to which you capitalize the earnings. Some railroads will have a very large value and some will not have any value at all.

Mr. HENRY. They have no value, except what their earnings show, and if they have the earnings, I do not know any reason why they should not be taxed upon the value according to the earnings.

Mr. WARREN. You look upon them something as a highway?

Mr. HENRY. Yes.

Mr. WARREN. A highway produces no income, and the abutting owner, who owns no fee in the middle of the highway subject to servitude, is not taxed.

Mr. HENRY. That is right. I think taxation is a matter of justice, distributed properly.

Mr. WARREN. Well, you have heard what Prof. Bullock said this morning—that he would take off these special franchise taxes, and when a sufficiently serious emergency existed, he thought it would be proper to take off all the taxes, even the property tax.

Mr. HENRY. Temporarily.

Mr. WARREN. Temporarily?

Mr. HENRY. Yes, sir.

Mr. WARREN. Do you think such an emergency as that has arrived?

Mr. HENRY. I think it has.

Mr. WARREN. And that if all of those taxes could be temporarily removed from these companies, they could pay dividends?

Mr. HENRY. Yes.

Mr. WARREN. Is there anything else? That is the second. The first thing you say is that the Government ought not to discriminate against these electric railways.

Mr. HENRY. The next is that after you have taken care of the emergency which is before us, then all of these burdens that are not chargeable as a part of the transportation expense should be taken off of every one of the roads.

Mr. WARREN. And that should be a permanent change?

Mr. HENRY. That should be a permanent change.

Mr. WARREN. Then, how about the regulation of the trucks?

Mr. HENRY. The regulation of the trucks? I should say that they should be regulated locally by the public-service commissions of the States, and that they should be required to file schedules and observe them. That is my notion about that.

Mr. WARREN. And they should be required to render their services regularly?

Mr. HENRY. Yes.

Mr. WARREN. And reliably?

Mr. HENRY. Yes.

Mr. WARREN. Just as the railways do?

Mr. HENRY. Absolutely. In other words, in the language of the article which I read from that circular, the "wildcatting" ought to be stopped.

Mr. WARREN. And although the jitneys are only lice, as compared with these trucks, the jitney's ought to be subjected to similar treatment?

Mr. HENRY. Oh, yes.

Mr. WARREN. Is there anything further?

Mr. HENRY. I do not think of anything else, Mr. Warren.

Mr. WARREN. How about the delays in securing an increase of rates?

Mr. HENRY. Well, that hurt us locally and generally all over the country, more than any other one thing. It is largely attributable, or has been, to a condition. I gave you an instance of the delays which we had. But you take Michigan. Just a month ago, not 60 days, that was the first relief that they got on the question of rates.

Mr. WARREN. Well, how long had they tried to get it?

Mr. HENRY. Well, they tried right away; but I think the commission was right, and I think the traction companies believed they were right, in saying that they had not any power, and that they had to go to the legislature.

Mr. WARREN. That was not a question of delay on the part of the commission?

Mr. HENRY. No, sir; I do not think the commission in any case that I know of—the State commission—can be justly criticized, except that they did not see the need quick enough. We felt it quicker than they could see it.

Mr. WARREN. But where there are laws that interfere with prompt action, or where there are franchise obligations that interfere with prompt action, or some things that prevent action altogether, you think they should be furnished by changing those laws?

Mr. HENRY. I do.

Mr. WARREN. And those franchise provisions?

Mr. HENRY. Yes, I do; and the people believe it.

Mr. WARREN. You think, so far as your State is concerned—Indiana—when that situation exists, or is brought about, you can rely upon the commission for sufficiently prompt action?

Mr. HENRY. I do. I have great confidence in our commission, not only in its present make-up, but in former makes-up of the commission.

Mr. WARREN. How about the other States in which the interurbans operate?

Mr. HENRY. So far as I know—and I know a great deal about it, probably as much as anybody does in the country—the State commissions have not been unfavorable to the interurbans. They are regarded as the people's mode of transportation, the mode which the people want, and it should be taken care of.

Mr. WARREN. Have you had much opposition from the people which you serve in the increases?

Mr. HENRY. No, sir; none. I went down to the towns—this will illustrate it—I went down to the towns along our line, the principal towns, before I filed the application for the 2.5-cent fare, and I put a notice in the paper and called for a public meeting, and I got an actual affirmative indorsement from every one of these communities to the commission to grant the increase; and I think, in many cases, we make mistakes in not going right to the people to get their affirmative support.

Mr. WARREN. So that when you took your case before the commission you had practically the indorsement of all your communities?

Mr. HENRY. I had it absolutely.

Mr. WARREN. Do you think, perhaps, the delay would have been greater if you had not had that?

Mr. HENRY. No. I think they got muddled on the 2-cent-fare law. That caused the most of the delay.

Mr. WARREN. Yes.

Mr. HENRY. I used the word "muddled," because it was muddled. The proposition itself was as clear as could be, but they got muddled on it. They did not want to violate the law, and they thought they could say that they had not jurisdiction and get rid of the bother. That is the only thing I blame them for.

Mr. WARREN. That is all I want to ask.

The CHAIRMAN. What three States embrace the Central Electric Traffic Association?

Mr. HENRY. Excuse me. I did not catch your question.

The CHAIRMAN. I say, what three States are embraced in the Central Electric Traffic Association?

Mr. HENRY. The Central Electric Traffic Association embraces nearly all of the roads in Indiana, Ohio, Michigan, a few of the roads around Louisville, Ky., and a few in the western part of Pennsylvania.

The CHAIRMAN. And your mileage is something over 6,000?

Mr. HENRY. Yes, sir.

The CHAIRMAN. How many railroads are there?

Mr. HENRY. I can not give you the number. I do not have them in my mind.

The CHAIRMAN. Do you have available figures showing the mileage of each separate corporation?

Mr. HENRY. Of each of these?

The CHAIRMAN. Yes.

Mr. HENRY. I can get that. I have not got that with me, but I can furnish it to the commission, and would be very glad to do it.

The CHAIRMAN. Will you file with this commission a statement showing the mileage of each of those railroads?

Mr. HENRY. Yes, sir.

The CHAIRMAN. Their capitalization divided into stocks and bonds?

Mr. HENRY. I may have difficulty about doing that. I will do it as far as I can.

The CHAIRMAN. Let me present my request, and then do the best you can—the capitalization divided between stocks and bonds, and also a statement showing what dividends had been paid upon the stock, and the other fixed charges during the past five years.

Mr. HENRY. I will try to get that. I can get most of it, I know.

Mr. WARREN. These statistical data that the commission has asked for from time to time, I presume, it will be perfectly proper to file after our hearings are closed?

The CHAIRMAN. Oh, yes.

Mr. HENRY. There are 12 roads running out of Indianapolis, and in order that you may know that the service which I speak of was not attributable to a want of steam railroads, there are 15 steam railroads—not companies, roads.

Commissioner SWEET. Are you a lawyer?

Mr. HENRY. No, sir; I used to be.

Commissioner SWEET. You are a "has been"?

Mr. HENRY. I am a "has been"; yes, sir. I was a lawyer until I drifted into Congress, and I drifted out of Congress into this.

Commissioner SWEET. You have been a Member of Congress?

Mr. HENRY. Yes. I will have to plead guilty to that.

Commissioner SWEET. Among your other sins?

Mr. HENRY. Yes.

Commissioner SWEET. You have had a good deal of experience in dealing with people, have you not—the public?

Mr. HENRY. A very great deal. I always keep close to them.

Commissioner SWEET. And you have found that by going right to the public with your interurban problems and presenting the facts to them honestly and squarely, you met with a friendly and hearty response?

Mr. HENRY. Yes, sir.

Commissioner SWEET. Do you think that rule would apply to the city railways, as well as the interurbans?

Mr. HENRY. Not as fully, but in a general way; yes. You can not reach them the same way.

Commissioner SWEET. That is because the dense urban population is more difficult to get hold of?

Mr. HENRY. Yes. And also there is a difference in the character of parts of the population. In the small communities, you do not find the bad spots in the population as much as you do in the cities.

Commissioner SWEET. I think I know what you mean. What we call the laboring element, the manual labor—

Mr. HENRY. No.

Commissioner SWEET. They are not as intelligent?

Mr. HENRY. No; I do not mean that. I have the greatest confidence in the world in the laboring element, when they are let alone; when they do not have labor agitators in their midst, there is no trouble with them. You can reason with them, just as well as you can with anybody else.

Commissioner SWEET. But are they as much inclined to reading as the ordinary laborer of the country?

Mr. HENRY. Oh, yes; they are. We have quite a number of intelligent laboring people in our part of the country.

Commissioner SWEET. Well, what is the difference?

Mr. HENRY. For instance, in Indianapolis, there is a Greek settlement, there is an Italian settlement, and so on, like that. We do not have a great deal of it. In New York you have much more.

Commissioner SWEET. You do not find that in the rural communities?

Mr. HENRY. No; in proportion, it is greater in the cities. They soon get amalgamated in the smaller communities.

Commissioner SWEET. They Americanize rather quicker?

Mr. HENRY. Yes, sir; they do.

Commissioner SWEET. There are not so many of them to hobnob together?

Mr. HENRY. But outside of that, I think the proposition is just as good for the cities as it is for the country, the country town—that is, to go to the people and present it.

Commissioner SWEET. What is the rule on these interurban roads that you are connected with with regard to passengers within city limits? Do you take them on and discharge them—

Mr. HENRY. In Indianapolis, and that is the only large city we touch, the city ordinance under which we enter the city requires us to make the same stops as the city cars, and to carry city passengers at 5 cents within the city, from a point within to a point within. At the time that was made, the city company issued tickets at 6 for a quarter, or 25 for a dollar, and the little difference of 5 cents—I was instrumental in getting it—kept the city traffic off of our cars very largely, but now, since the city company is charging 5 cents we are cursed with it—a regular nuisance.

Commissioner SWEET. You mean the local business has increased beyond what you want?

Mr. HENRY. They will take the seats of the interurban passenger going at a distance ought to have.

Mr. WARREN. You do not want the city business on your line?

Mr. HENRY. We do not want it. That will have to be changed in order to relieve us from that. The commission regulates an interurban ride as a ride to or from a point outside the city, although it starts within the city.

Commissioner SWEET. At the time the interurban car reaches the city limits—

Mr. HENRY. It does not make any difference in our interurban fare.

Commissioner SWEET. It does not?

Mr. HENRY. No, sir. We get our mileage onto the terminal station, under the order of the commission.

Commissioner SWEET. That is different from the interurbans in Michigan; is it not?

Mr. HENRY. It is different from a good many States, but that is our situation.

Commissioner SWEET. I think the interurban rule in Michigan is to charge a 5-cent rate from the city limit to the terminal station.

Mr. HENRY. A good many of them do, but it is not right, and our commission said so. Our commission said it was a part of his ride until he got to his destination.

Commissioner SWEET. Have you any reason to doubt your ability to get a raise to the 3-cent per mile fare from your commission, if you should go to the commission for it?

Mr. HENRY. That is guesswork, and we never have a doubt about guesswork.

Commissioner SWEET. Well, do you think you could get it?

Mr. HENRY. I think so; but they would do it reluctantly, because they have said it is to our interest to charge only the 2 $\frac{3}{4}$ -cent fare.

Commissioner SWEET. Do you think the same way?

Mr. HENRY. I do now. I might change my mind. I always reserve the privilege to change my mind, but at the present time I think the 2 $\frac{3}{4}$ -cent fare is what we ought to charge.

Commissioner SWEET. Then you do not think you could get relief by increasing the fare?

Mr. HENRY. I do not, in our case, because we have already gotten relief by an increase of fare from 2 cents up.

Commissioner SWEET. What is your explanation of the fact that they can do that in Illinois and can not do it in Indiana?

Mr. HENRY. I should say they are getting more money than they got at 2 $\frac{3}{4}$ cents. I don't know what their local conditions are.

Commissioner SWEET. But they are charging a 3-cent fare?

Mr. HENRY. Yes.

Commissioner SWEET. I understood you to say it was without particular objection.

Mr. HENRY. No; if I said that, it was not my intention to say it, because there has been a great deal of objection on the part of the people of the State to the 3-cent fare in Illinois, but there was very little in Ohio.

Commissioner SWEET. Well, has it increased their revenues or not?

Mr. HENRY. Oh, yes.

Commissioner SWEET. Then, why would it not increase your revenues?

Mr. HENRY. Well, it might do it. I don't know whether it would in our case. I think we could get more revenue at the 2 $\frac{3}{4}$ cents than we would at 3 cents. The people rather like it because they think we

are giving them a special privilege in carrying them for less than the steam roads, and more people ride at that rate than they would at the 3-cent rate, in my opinion.

Commissioner SWEET. What is it you want the Railroad Administration to do?

Mr. HENRY. Well, as they are going to have a very short life it is hardly worth mentioning it, but I will tell you. One of them is that in the express business they should direct the American Railway Express Co. to give the interurbans their proportion of the express business of the country.

The CHAIRMAN. Has that question ever been put up to the Railroad Administration?

Mr. HENRY. I took it up personally with Mr. Thielen—I think that is his name—under an appointment, along with others. I happened to be the chairman of the committee, and I addressed him on the subject, and I put the subject up to him just as it was; and his answer was, “Well, you would not expect us when we are running the steam railroads”—this is in effect, not in words—“you would not expect us, in looking out for the income of the steam railroads, to give the business over to the electric lines, when we do not have to.” That was in effect his answer.

Commissioner SWEET. What do you think was wrong about that answer?

Mr. HENRY. What?

Commissioner SWEET. Outside of your personal interest, why was not that a good answer?

Mr. HENRY. I will tell you why it is not. They are representing the people of the United States, and we are a part of the people of the United States, just the same as the owners of the steam railroads are, and they have no moral right, in running the steam-railroad business, to run it in such a way as to cripple any other industry that is entitled to live just as well as they are and that people are dependent upon just as much as they are on them.

The CHAIRMAN. Do you believe that the Government should not have diverted any traffic from any line, unless it was necessary to do so for war purposes?

Mr. HENRY. That is exactly what I do.

The CHAIRMAN. I agree with you.

Mr. HENRY. Another thing they can do, while on that subject, is this: They have an agreement with the short-line railroads by which they allow them two days' free overtime on freight cars before demurrage commences. Now, they turn a car over to Mr. Faber, in Illinois, on the line from Elgin to Chicago, or to Mr. Budd, on the line from Chicago to Milwaukee, and they charge them from the minute they get it.

Commissioner SWEET. They charge demurrage right off?

Mr. HENRY. Yes. They did that. I do not know whether they changed that at all or not. I know they are doing it in many cases. In other cases the traffic was so large that there was some hope they would change it.

Commissioner SWEET. What is the next thing you would have the Railroad Administration do?

Mr. HENRY. The Railroad Administration itself?

Commissioner SWEET. Yes.

Mr. HENRY. Well, they can not do it now, but they ought to cut down the abnormal price of material which they fixed without reason, and which, therefore, set a pattern against us for prices.

Commissioner SWEET. Are you referring to steel, now, and coal?

Mr. HENRY. I refer principally to ties and poles and things of that kind. Nobody is buying a steel rail.

Commissioner SWEET. Do you mean the prices that were fixed during the war?

Mr. HENRY. Yes; and still maintained. Not only that, but we can hardly get the ties. They are making every effort, of course, to catch up with their rehabilitation. They got behind, of course, during the war.

Commissioner SWEET. Do you think, Mr. Henry, that the Railroad Administration fixed, or can fix, these prices?

Mr. HENRY. They do fix them. I will tell you how they do it.

Commissioner SWEET. Now?

Mr. HENRY. They fix them now. This is the way they fix them. They say, "We will give you \$1.25 for all the crossties in a certain territory," and then different prices in others. That is the price that is fixed there, and when we have got to buy from that territory we have to buy at the same price because the Government fixed the price.

Not long ago I inquired for some 45-foot cedar poles. I made some five or six inquiries, and the answers came back as though they had taken a rubber stamp and stamped the price which they quoted. They were just exactly alike, just as much so as if they had used the same rubber stamp on all of them. I was quite well acquainted with the salesmen of several of the companies, and I talked to them very freely about it. I said, "I realize, of course, that you are not going to break your combination price." They said, "What do you mean by combination price?" I said, "I mean the combination price you have agreed you won't sell to us for anything less than the price that is fixed for poles by the Railroad Administration." Although they can buy only one-tenth or one-hundredth of the number of poles, because they don't have much use for that kind of a pole, it fixed a certain price there, and I offered them \$1.40 for less than that. I was just trying them, and finally I bought them at that from a man who broke out of the gang.

Commissioner SWEET. This price fixing that you are speaking of is not a matter of law?

Mr. HENRY. No, sir.

Commissioner SWEET. It is something that inheres in every large buyer, ordinarily, does it not, whether governmental or any other large buyer?

Mr. HENRY. Usually the large buyer gets the cheaper prices. If you count the Government as the large buyer, it fixed the higher prices paid, although they were normal at the time they were fixed.

Commissioner SWEET. What else do you want from the Railroad Administration?

Mr. HENRY. That is all I have now.

Commissioner SWEET. That is all.

Mr. WARREN. That is all, Mr. Henry.

The CHAIRMAN. You are excused, Mr. Henry.

Mr. WARREN. Mr. Kellogg, will you take the stand, please?

STATEMENT OF MR. CHARLES W. KELLOGG.

Mr. WARREN. Will you give your full name, Mr. Kellogg?

Mr. KELLOGG. Charles W. Kellogg.

Mr. WARREN. And your residence?

Mr. KELLOGG. Boston, Mass.

Mr. WARREN. What is your occupation?

Mr. KELLOGG. I am with Stone & Webster, of Boston, and have been in charge of the street-railway business, amongst others, for about 15 years.

Mr. WARREN. Have you in connection with your work had occasion to give special attention to the one-man car or the safety car, so called?

Mr. KELLOGG. I have this year, as chairman of the committee of the American Railway & Electric Transportation & Traffic Association, which is studying that, among three or four other subjects; and it was on account of the study which we have made of that subject that I was asked to testify here to-day, as I understand it.

Shall I go right on and tell about the car?

Mr. WARREN. Yes; go right ahead.

Mr. KELLOGG. The one-man car, so called, has to be distinguished in two ways. The method of operating a street-car with one man instead of two simply is the closing up of the back platform and having one man on the front end of the car; and that is one that has been in use in the street-railway business by small companies, just as a matter of saving platform expense, for a great many years. There is nothing new about that method of running a street-car, but there is a very new thought contained in the so-called Birney safety, designed by a man named Birney from St. Louis, Charles S. Birney. This car was the result of jitney competition. As you all remember who have followed the street-railway business, about five years ago there was a terrific flood of light automobiles, mostly Ford cars, that came out on the streets, and especially in the southern cities, where the climate was mild, which created havoc with the street-railway business.

It was the feeling of Mr. Birney and others that the only way to get that business back was to build a street-car which would simulate as nearly as possible the conditions which that seemed to be able to create.

That meant a light car, so as to save power and so as to accelerate quickly. It meant a one-man car, because there was only one man to run a jitney; and that was how the one-man car, as they use the term to-day, the one-man safety car, came into use. Now, this car was very light as compared to the old ones. Let me go a little further back in the business. About 10 or 15 years ago, or, perhaps, as long as 15 years ago, there was a perfect mania among street-railway companies for heavy street-cars, Pullman cars.

The CHAIRMAN. Why?

Mr. KELLOGG. It was felt that they were more dignified; they rode smoother on relatively poor track, and therefore would attract traffic. And anyone who has studied the situation and remembers the conditions in those days will know that even a small town that did not have large heavy double-truck cars was considered rather out of the running.

It was not until after all of the city systems were equipped with these very heavy cars, weighing around 50,000 pounds—some of them even heavier—that the industry woke up to the fact that an enormous unnecessary weight was being dragged around the streets, that they meant excessive investment, a correspondingly heavy track, and an expensive construction to carry these big cars. It meant correspondingly more power-station capacity to move them, including in that also substations, cables, etc., and correspondingly higher maintenance costs, both of the cars themselves and for the track they ran over to keep the service going.

The CHAIRMAN. Would you say that these large cars were urged by the car manufacturers?

Mr. KELLOGG. I should say not, although I am not able to pass on that point. At all events, the street railways were willing customers.

It was not until after this effect had occurred—I think that is a fair statement—until it had practically fully occurred, that the results were realized by the industry. Now, in view of the big investment that has been made, it seemed impossible to scrap this large investment.

I have mentioned that past history simply to indicate that, in addition to fighting the jitney competition, the light one-man car also filled a long-left want for some economy in power consumption and platform time on the part of the street railways.

Another very important feature of this new car, which distinguishes it decidedly from past types of one-man operation which I mentioned and which might be called a sort of home-made car, is the safety devices, because it was realized that the public would not stand in large cities for car operation by one man, unless there were special devices, such as to make the operation of the car safe in case that one man should be taken ill or drop dead or anything should happen to divert his attention.

That brought out the so-called dead man's handle, more or less similar to what is on a great many elevators, where if the man takes his hand off the controller, it immediately automatically goes back and shuts the power off; also if the controller automatically throws off in that manner, the brakes are applied on this car and sand applied to the track and the car is brought to a quick standstill.

There are other special devices, such as allowing for the hand-opening of the doors when this automatic stop is made; all of which has tended to make this Birney car not only actually safe but to convince the public, which uses the car, that it is safe.

This new car weighs about 13,000 pounds as against an average weight of the former city cars, which it replaced, of not less than 35,000 pounds, and, as I said before, a great many considerably heavier.

At the present time—and meaning by the “present time”, up to October 1 this year—there are 1,100 of these Birney cars in operation in the United States, and there are now under order and in process of manufacture about 600 more than that 1,100, 200 of this latter being for the Brooklyn Rapid Transit Co.

Now, in connection with the study which the committee of which I am chairman has made, we sent out questionnaires to all of the member companies in the street-railway business. The questionnaires contained about 50 questions covering all the various features which

the Birney car, or other one-man cars, were supposed to furnish, and I have here, in a report which I have worked out for my committee this year, the tabulated results of the answers to these questionnaires, which are very interesting.

They are quite brief, and if the commission will permit me, I will read them through very briefly.

First, regarding power consumption, of course there will be no power saving by converted one-man cars, but only by the Birney safety cars.

The average reduction in energy consumption per car-mile of using the Birney cars is 51.2 per cent.

Taking 3 kilowatt hours per car-mile as a fair average for most city systems, this means a saving of about 1.5 kilowatt hours per car-mile. Actual figures from 45 companies—

Commissioner BEALL. May I ask you a question right there?

Mr. KELLOGG. Sure.

Commissioner BEALL. Have you compared that car with a car that will carry two or three times as many people?

Mr. KELLOGG. No; I am comparing that with a car which will carry substantially as many. I will read those figures off.

As to general dimensions, the Birney car seats from 30 to 32 and, as you know, the seating capacity of 40 to 44 is quite a good-sized city car. The seating capacity is quite thoroughly comparable, although that of course is one of the ways the weight was cut down.

Commissioner BEALL. Well, how about the standing room?

Mr. KELLOGG. How about the standing room?

Commissioner BEALL. You make your money from the strap-hangers, do you not, and not from the seated passengers? If you ran all of your cars on seating capacity, you would not make any money, would you?

Mr. KELLOGG. You do with the Birney car. That is one of the surprising things that I am coming to later with regard to this car.

I will say this with regard to the heavy peak-load traffic, that where it is found that large cars need to be used over the peak to carry the heavy traffic, it is still possible to run those heavy cars and use all of that power and use the two trainmen only a few hours a day, with this light power car that saves power and labor. As a matter of fact, the weight per foot of this car is very low.

Commissioner BEALL. Well, they carry the same capacity of standing passengers as the other will; do they not?

Mr. KELLOGG. It will carry more per ton of weight on the car; yes.

Commissioner BEALL. That is not what I asked you, but will the car itself carry them?

Mr. KELLOGG. No; the car itself will not. It is a smaller car.

Mr. WARREN. It is a much narrower car?

Mr. KELLOGG. It is not conspicuously narrower. It is a little bit narrower. The over-all width of this car is 8 feet.

Commissioner BEALL. What I wanted to bring out so that we can understand it is this: Would you have to have big cars in the cities to handle the rush-hour crowd?

Mr. KELLOGG. You would in some cases, and in some cases you would not.

Commissioner BEALL. That makes a very big difference, whether this car will answer for all the demands of the average lines, or

whether it is only adapted to special business, and you have to have your other equipment anyhow.

Mr. KELLOGG. It is not a panacea. There are some lines where it would not work. That is perfectly true.

Commissioner BEALL. Well, right there, if it is proper, I would like to ask you this question: I think you have operated quite a number of them, have you not, in the West, around Seattle and other places?

Mr. KELLOGG. Yes; mostly down in Texas and the Southeast.

Commissioner BEALL. Well, have you not found that they were only adapted to lines which can not pay, or only to lines where you have lighter traffic and not such frequent service, and where you do not have a very big load?

Mr. KELLOGG. No; that is not so.

Commissioner BEALL. That is not true?

Mr. KELLOGG. No; that is not true.

The CHAIRMAN. At this point, we will adjourn until 8 o'clock to-night.

(Whereupon, at 5 o'clock p. m., a recess was taken until 8 o'clock p. m.)

EVENING SESSION.

STATEMENT OF MR. CHARLES W. KELLOGG—Continued.

Mr. WARREN. Mr. Kellogg, will you proceed with the result of your investigation?

Mr. KELLOGG. When we adjourned, Mr. Chairman, Mr. Beall had a question I do not think I had answered quite satisfactorily, and that was with regard to the smaller size of these cars. I think you made the point, Mr. Beall, that while the amount of power consumption was small, the car itself was smaller, and as to that I think perhaps the fairest way to put it is that the Birney car, seating, say 32, has a power consumption about half as large as a car seating 40 to 44; so that while the car is smaller there is some less power per seat.

Commissioner BEALL. How about the rush-hour capacity? Will it hold as many people standing? That was not really my point. I think you missed it.

Mr. KELLOGG. I do not think I did get your point.

Commissioner BEALL. I was simply trying to find out whether that necessitated any duplication in whole or in part by larger cars to handle peak loads.

Mr. KELLOGG. It would require more of the Birney cars to furnish the same number of seats than of the larger cars.

Commissioner BEALL. I did not mean quite that. I mean—a good many companies have the Birney cars and whether they would not also have to have larger cars also to some degree?

Mr. KELLOGG. To some degree they might; yes.

Commissioner BEALL. I am not trying to make out a point, but to get information.

Mr. KELLOGG. It might work out that way.

Mr. WARREN. What about snow? I have particularly the New England cities in mind, where we have at least a month of very heavy-snow weather.

Mr. KELLOGG. We have had reports from one or two Northern cities that they are sometimes bothered with snow, and also from one company in Illinois—Mr. Bosenbury, of the Illinois Traction Co., who reports that in that case they take out their heavier cars and leave the light cars in the barn.

Mr. WARREN. That would mean more or less duplicate equipment?

Mr. KELLOGG. That would mean more or less duplicate equipment in that case.

Mr. WARREN. Something like the open-car proposition, where the company, to run open cars in the summer weather, has to have two equipments of cars.

Mr. KELLOGG. That would tend to reduce the saving that could be made from the operating feature.

The CHAIRMAN. Are any of these cars used in the congested portions of the city?

Mr. KELLOGG. Well, they are in some cases. The closest headway we had reported was one minute; and in the city of Seattle I know these Birney cars run in with the other cars through the congested district and, as far as our reports go, they are able to hold their place in line with the other cars.

Mr. WARREN. Is that the largest city that uses them?

Mr. KELLOGG. I should say perhaps Seattle was—no; Kansas City uses them, and Kansas City I think is larger than Seattle, and it uses Birney cars.

Mr. WARREN. How long has Kansas City used them?

Mr. KELLOGG. That I can not say. My impression would be perhaps six months or something of that sort. It is quite recent.

The CHAIRMAN. You stated that 200 are being built for the B. R. T.—in Philadelphia, is it?

Mr. KELLOGG. No; the Brooklyn Rapid Transit.

The CHAIRMAN. How will they be used there?

Mr. KELLOGG. They will be used in some of the lighter lines where traffic is not so heavy.

Commissioner BEALL. We have a lot of lines in the semisuburban section.

Mr. KELLOGG. That would be where they would be used first.

Commissioner BEALL. They would not attempt to use them in the thickly settled portions of the city?

Mr. KELLOGG. No; they will first be used in the lighter lines.

Mr. WARREN. Kansas City started, did it not, with some made-over cars? Did they not start with 35 cars that they made over themselves?

Mr. KELLOGG. That I do not know, Mr. Warren.

Mr. WARREN. Do you know whether or not they use them so far as they have actually used them on the suburban lines—that is, the outlying lines?

Commissioner BEALL. Where do you mean? To Independence and those sections?

Mr. WARREN. Yes. I do not know the names of the places.

Commissioner BEALL. That is one of their principal suburban lines.

Mr. WARREN. But not in their congested section.

Commissioner GADSDEN. I can answer that, because I was there last week. Mr. Keeney is running those cars right in between the others in the congested part of the town.

The CHAIRMAN. You may proceed, Mr. Kellogg.

Mr. KELLOGG. If the commission please, I will read the results of the answers to these questionnaires.

The next subject we took up was the saving of the trainmen, and the replies show that the operator on a one-man car was paid more than either of the other trainmen on a two-man car by about five-eighths of the companies which answered the question.

Commissioner MEEKER. Are you going to submit the results of the questionnaire to the commission?

Mr. KELLOGG. I am going to have to dictate it because this thing is just some notes I have for reference. The figures are fairly simple, however, and I think it will be perfectly clear in the record.

I have here a list of the additional amounts in cents per hour paid to the operators of one-man cars and they average 4 cents an hour more than is paid to either of the men on a two-man car. The theory of that is that the company shares with the trainmen part of the saving which is secured from this method of operation.

As to the question of how the trainmen feel toward one-man cars, the replies showed favorable 83 and unfavorable 10.

Commissioner BEALL. What is that—systems or men?

Mr. KELLOGG. Systems reporting that their men were favorable or unfavorable respectively, showing the men in 89 per cent of the systems favored the Birney car.

Commissioner MEEKER. How reliable are those returns? Can we accept the statement of the company officials whether the men are favorable or unfavorable without question?

Mr. KELLOGG. That was the only source of information the committee had to go by. I do not think there was any plebiscite taken or anything like that.

Mr. WARREN. May I state one thing from my own conferences with the men? Do you happen to know whether or not the men in a number of instances have included in their demands in making contracts for their wages and working conditions a demand that every car shall be operated by a crew of two men?

Mr. KELLOGG. I do know that the Amalgamated Association through its president has come out very strongly against these cars. Mr. Mahon has issued two or three manifestoes ridiculing and criticizing the cars very severely; and in giving these figures that I have given I am simply giving the information we received from the companies to whom we sent out the questions.

Mr. WARREN. But you did not visit the companies; you did not have an opportunity to ask them questions.

Mr. KELLOGG. No; we did not. It was all done by mail with a formal printed questionnaire.

Mr. WARREN. Yes.

Mr. KELLOGG. The same ratio was reported in answering the question as to whether the trainmen opposed the inauguration of one-man car operation, the opposition being classified as seven due to labor-union feeling and three due to apprehensions of the men as to the difficulty of accounting. Of course the man who runs these cars

is pretty busy; he has to operate the car and take care of his trip sheet and the money and change, and he is a pretty busy man.

In answer to the question as to whether or not trainmen have been assured that they would not lose their jobs due to the starting of one-man operation the companies were divided about equally, 39, reported that they had made this promise and 42 that they had not. The recommendation of our committee would be to the effect that such a promise should be made, for the reason that these cars are introduced gradually and the number of men who fall out of the ranks for one reason or another is sufficient to prevent the company from being obliged to hold extra men on account of that promise.

Commissioner GADSDEN. Would not that be entirely taken care of by the unusual turnover in employment?

Mr. KELLOGG. It apparently has been.

Mr. WARREN. That is the dropping out of men?

Mr. KELLOGG. That is the dropping out of men for one reason or another—it would be, very easily.

Mr. WARREN. Do you not think that with a 60-cents-an-hour wage that turnover is going to be very much lessened?

Mr. KELLOGG. I should imagine it would be.

Mr. WARREN. Taking Boston, for instance, it is 62 cents an hour for an 8-hour day. That is——

Mr. KELLOGG. Pretty good money for unskilled labor.

Mr. WARREN. That is \$5 a day without any of the overtime and the bonuses which will necessarily go with the shorter hours. I apprehend myself that the turnover is going to be very much less.

Mr. KELLOGG. I think it will be hard to keep them out of the business pretty soon.

Mr. WARREN. There have always been more applications than places in normal times.

Mr. KELLOGG. With regard to the public attitude toward one-man cars, it was reported as friendly by 84 and unfriendly by 18. It was also stated that this latter number was changed to 4 after a trial of the cars themselves.

Commissioner BEALL. May I ask there, is there anything in your questionnaire which would show whether those which reported unfavorably among the users of the cars, whether it was the large towns or small towns, or whether it is interspersed between different classes of cities as regards the size of population?

Mr. KELLOGG. I am sorry to say I could not answer that question without referring to the original record. I do not have it in mind.

Commissioner BEALL. All right.

Commissioner MEEKER. Can not you submit that information? Because that would be important.

Mr. KELLOGG. I would be very glad to do so. I will get that and send it in.

With regard to the question of fare collection on one-man cars, the replies show that no difficulty or no change from conditions with two-men cars took place in 88 cases; and three companies reported difficulty, saying however, it was only to a limited degree. In the matter of schedules——

Mr. WARREN. Before you leave the other matter, did the questionnaire indicate whether the fare collections in those cases that had no

difficulty were flat fares, so far as the territory covered by the one-man cars was concerned, or whether they were zone systems?

Mr. KELLOGG. They did not. There would be more difficulty with a zone system.

Mr. WARREN. In fact, on a good many lines, even where it is not technically known as a zone system—that is, a 5-cent fare with an increment of 1 or 2 cents for each zone thereafter—there are a good many lines where there is more than one 5 cents collected by a good many companies.

Mr. KELLOGG. Yes. It is also true, of course, in the case of the complicated zone system, where some kind of a ticket-issuing machine would have to be used; it might become almost impossible for one man to do that class of business. That particular subject did not happen to come up in the questions which we sent out. I do not think there is any company yet using that machine, although the Public Service Corporation of New Jersey, I believe, is planning to do so.

Mr. WARREN. I suppose a prepayment zone and an inclosed area where the great majority of the passengers took the car—take Boston for instance, with which you are familiar, the subways are prepayment areas.

Mr. KELLOGG. Yes.

Mr. WARREN. And if in the cities generally it were possible at a congested center to establish a prepayment area where every passenger would pay his fare when he went into the area and take his car in the area, that would help out with the one-man car.

Mr. KELLOGG. It would; yes.

With regard to schedules, the replies to the questions under this heading had to be clearly distinguished between the converted one-man car—meaning by that a former two-man car that had been rebuilt to operate with one man—and the Birney car, because of course the former cars simply ran as they did before and we found an average of 14.76 per cent increase in scheduled speed reported from the use of the Birney cars. The headway had been increased by the companies reporting on 43.7 per cent, making—

Mr. WARREN. That means they ran more cars?

Mr. KELLOGG. That means they ran more cars—43.7 per cent more cars at an average speed of 14 $\frac{3}{4}$ per cent greater, which made an average increase in car frequency of 58.46 per cent.

Commissioner BEALL. How much more money did they take in? That is your test.

Mr. KELLOGG. That is the next question I have to answer. One more point before I get to that. One question as indicating the range of adaptability of Birney cars, the headways are from 1 to 30 minutes reported.

Now, on the matter of earnings, of course these reports on earnings refer to the most successful lines where the conditions were exactly right for the use of these cars; and the most successful lines showed a slight decrease in gross per car-mile, from 21.11 cents to 20.65 cents, with this increase in car-miles operated of 53.4 per cent and an increase in gross earnings of 51 per cent. In other words, where the conditions are just right for the use of these cars their benefit comes from taking the saving in operating expense—that is, in power and platform time—and spending that money on additional service.

Now I want to explain right there, so that the commission will realize the limitations of this Birney car, that the only place where it can accomplish its best results is where the schedule initially is such that more people will ride if cars come more frequently or—that is the only case. Now the other cases would be a very light traffic in a small city where, if you had a car every 30 seconds, you would get no more people because no more are there to ride. There the car would save nothing but platform expense and fuel; or in a very dense traffic where cars were frequent enough to be in sight, you might say, most of the time. The Birney car would add nothing there to the amount of traffic, so its most useful field is in cases where the traffic on a line can be increased if the frequency is furnished; and that represents the maximum effective use of these cars.

MR. WARREN. Before you leave that, Mr. Kellogg, you said the earnings were 21 cents a mile?

MR. KELLOGG. Before, and 20.65 afterwards.

MR. WARREN. Is not that a pretty light earnings per car-mile? Would not that indicate that these companies were not in districts of heavy traffic? My recollection is—

MR. KELLOGG. That is a light average; yes.

MR. WARREN. I think the average for the country is something like 36 or 38—is it not—now?

MR. KELLOGG. I do not happen to have that figure in mind. I did not know it was quite as high as that.

MR. WARREN. I may be wrong, but I know they have gone up—the earnings per car-mile. During the last year, owing to the increase in rates—

MR. KELLOGG. Oh, yes; I think perhaps that is true.

MR. WARREN. And my impression is that the rates of some companies in Massachusetts are over 40 cents, but it used to run around 25 or 26.

MR. KELLOGG. These earnings that I am referring to are on a car-mile basis.

Next as to the effect of Birney cars in eliminating jitney competition: As I explained this afternoon, the Birney car was born from jitney competition; that is what produced the car. The replies to that question do not make much of a showing because a large number of the companies reported they were not bothered with jitney competition, but nine companies reported complete and two companies partial elimination of jitney competition due to the use of Birney cars. Those companies were largely in the South—Texas and the Southeast, where the mild winter enables the jitney to flourish a good deal more than it can in the North and where the size of the cities is such that it is just about right for jitney service.

Regarding operating features, the answers as to whether accident reduction had been secured, 47 companies reported reductions and 22 companies no reduction. I am inclined to believe, however, that those 22 were considerably of the old converted type, because there were 24 companies which had no safety devices on their cars.

We asked the question as to car maintenance—whether any saving could be made in car-maintenance cost through the use of the Birney car. This question was really more for an expression of opinion than for actual experience because, as you probably realize, this device is quite new. While there will be 1,100 of these cars in use in

this country by October 1, still the actual number in use is still pretty small and the time in which they have been used is very brief.

Mr. WARREN. They are all new in other words?

Mr. KELLOGG. Yes. They are skimming the cream now. But at all events six of the companies predicted a substantial reduction in car maintenance; about half of the companies predicted a saving in the cost of track maintenance. Of course, there were no figures on that, but that was their opinion.

With regard to the question of acceleration—of course you realize that the increase in speed obtained by these cars is obtained almost entirely through their quicker acceleration; they pick up more quickly. There were several companies that had actual figures on that, giving the acceleration in miles per hour per second; and they showed for the average car 1.67 and for the Birney car 2.53.

Mr. WARREN. What does that mean? What do those figures indicate?

Mr. KELLOGG. Those are miles per hour per second in acceleration of the car. One point we asked particularly about was that of flagging railroad crossings. You gentlemen, of course, realize that it has been the practice from time immemorial in the street-railway business when a street-car approaches a railroad crossing for the conductor after the car has been stopped to get off and go ahead of the car onto the crossing, look up and down the track and signal the car to come across. With the Birney car that practice is impossible; in fact it would be dangerous for the trainman to leave the car and go onto the railroad crossing. So the method of flagging is simply to stop the car, for the operator to look up and down the track, and, if all is clear, to proceed. There is some difference of opinion as to the safety of that. Personally I do not think with a normal railroad crossing where the view is unobstructed that that method of flagging is any more dangerous than the old-fashioned method. But wherever a complicated set of tracks are crossing it is necessary with the Birney cars to maintain a flagman who can actually be there at all times. Of course, to such an extent, whatever that amounts to, it tends to offset the saving in expense in the use of these cars.

Mr. WARREN. Would that mean one man or two? It would mean two; would it not? He would have to be there during the hours the car runs?

Mr. KELLOGG. Yes, you would have to have a man on a flag crossing where the view was obstructed or there were a great many tracks.

Mr. WARREN. And to cover the period of operation it would require two men?

Mr. KELLOGG. Yes, two 9-hour men, probably.

Mr. WARREN. Yes.

Mr. KELLOGG. The answer to the general question of whether the saving with the one-man-car operation would lead the company to favor the extension of its use showed this result: Extension favored by 76 companies; not favored by 2. That seemed like a pretty decisive vote.

Commissioner SWEET. No replies from the rest of them?

Mr. KELLOGG. No, some of them did not answer some of the questions. It seemed to work out that way. I think that is true of all questionnaires.

Commissioner SWEET. That you ask questions and some people answer some and some answer others, like a ballot.

Mr. KELLOGG. Yes; like a ballot.

The committee feels that the most valuable features of the Birney car in the order of their importance are: First, improved service to the public both as to frequency and safety; second, increased earnings; third, decreased expenses (although, as I just explained, the maximum results when conditions are right are obtained by taking the saving in expenses and spending it on service).

The committee also agreed that part of the saving should be shared with the trainmen at a slightly higher hourly rate, although we did not feel like recommending exactly what that percentage should be.

Mr. WARREN. You said the average so far was 4 cents?

Mr. KELLOGG. Four cents.

Commissioner GADSDEN. What is the range?

Mr. KELLOGG. From 1 to 10; but most of them are in the middle range. That is, it is not a uniform range from 1 to 10. There is just one at 1 and one at 10, as I remember.

Commissioner BEALL. I suppose on the average system there would not be more than one-third of your motormen who would be capable of satisfactorily operating that kind of a car, would there?

Mr. KELLOGG. Possibly not.

Commissioner BEALL. Is that what the objection is?

Mr. KELLOGG. Although the men seem to like it. That is, the work interests them.

Commissioner BEALL. The fellow who can do it likes it because he gets more money?

Mr. KELLOGG. Yes. Well, it interests them. They say the day passes quicker; that is the comment you hear the men make.

Mr. WARREN. It requires the combination of the capacity of a motorman and a conductor, to a certain extent.

Mr. KELLOGG. It does. It requires quite a high bookkeeping skill, and in fact some of the old-line motormen, the old fellows who have been on the front end for a great many years, do not seem to be able to handle the one-man car at all; it confuses them.

Mr. WARREN. That is due to the bookkeeping end of it, I suppose.

Mr. KELLOGG. Yes; they do not know the bookkeeping part.

Mr. WARREN. Do you know how the conductors have made out in running them? Are they, as a rule—or are a good many of them able to take on the work of a motorman and do it satisfactorily?

Mr. KELLOGG. We asked that question; and the replies seemed to be rather inconclusive. The men I talked with who seemed to have the most experience with Birney cars seemed to feel that an ex-conductor makes the best operator.

Mr. WARREN. An ex-conductor?

Mr. KELLOGG. An ex-conductor; because he has had that experience in handling trip sheets, transfers, fares, and so forth.

Mr. WARREN. And he can take on the work of a motorman better than the motorman can take on the work of a conductor.

Mr. KELLOGG. Yes, although that is not universal. That is to say, there is no reason why an intelligent motorman should not run one of these cars.

As I have just stated, one of our conclusions is that when inaugurating one-man-car service it is good policy to assure the trainmen that no man will lose his job on account of the new cars.

Mr. WARREN. That is to head off their opposition?

Mr. KELLOGG. That is to head off opposition; and it is a perfectly feasible thing to do.

The other conclusions I have here have already been covered more or less in my testimony. We point out the fact that the saving which can be obtained from Birney cars depends very largely on the traffic existing at the time and that a very small community can save only a certain amount of operating expense; a very dense line can probably save very little if anything. So that the zone of greatest usefulness is where increased riding can be obtained from increasing the frequency.

Another point which has been brought out in the discussion—this is really recapitulating—is the fact that where traffic is too heavy over the peak field for the Birney cars, naturally the old heavy cars can be used at that time. Of course, that is a very mixed blessing, because it requires having two extra trainmen available for that service, to whom you have to pay the minimum wage for waiting around all day, and it also means maintaining the heavier car; so as such it is rather a disadvantage than an advantage.

Mr. WARREN. That minimum wage is running now at what number of hours, do you know, generally, Mr. Kellogg?

Mr. Kellogg. I think the practice varies a good deal on that.

Mr. WARREN. It is increasing?

Mr. KELLOGG. But I have in mind it is at least eight hours and in some cases nine. I think it is at least eight hours a man is guaranteed, so if he can not be used eight hours you are simply wasting that much money.

Commissioner GADSDEN. There would not be any saving in that feature.

Mr. KELLOGG. No; that would be rather an adverse feature. Another adverse feature, as Mr. Warren's question pointed out, would be in case of heavy snow storms, where the light car could not get by as well as the heavy one. It might be necessary to have spare heavy equipment for that purpose.

The committee felt that standardization was quite desirable. So far, these Birney cars have been built all of a pattern almost entirely, and it is rather hoped that that may lead to somewhat lower construction costs if these cars can be gotten out in very large numbers from the same pattern on the general principle of quantity production.

Mr. WARREN. On the whole, your feeling is that the car promises considerable help within a certain range where it is adopted to use; is it not?

Mr. KELLOGG. Within a certain range the results which have been obtained are remarkable.

Mr. WARREN. I suppose, on the other hand, that the car is so new that the answers to these questions are all more or less tentative—that is, no company has, for instance, used them long enough to know what the life of the car will be or what its maintenance will be.

Mr. KELLOGG. That is true. What I said about maintenance ex-

presses the belief of managers who reported on that point. The same thing was true of track maintenance; it was simply an expression of opinion.

Mr. WARREN. I suppose the latter would be based on the theory that a lighter vehicle ought to use up the track much more slowly than a heavier vehicle would.

Mr. KELLOGG. Yes.

Mr. WARREN. I think our own experience would demonstrate that, when we used to run lighter cars.

Mr. KELLOGG. Yes.

Mr. WARREN. I think that is all I have to ask, Mr. Chairman.

Commissioner MEEKER. Do the passengers like this higher acceleration of the Birney car or do they object to it?

Mr. KELLOGG. Do the passengers object to it?

Commissioner MEEKER. Yes.

Mr. KELLOGG. No; so far as I know, they do not.

Commissioner MEEKER. Does it mean starting so suddenly that it gives a perceptible jerk?

Mr. KELLOGG. No; the jerk would have no particular effect on acceleration. Acceleration is the actual gain in speed in miles per hour for each second of time, which is a perfectly gradual process right through from rest to full speed.

Commissioner MEEKER. There is not any greater jerk in the actual starting of the Birney car as compared with the heavier car?

Mr. KELLOGG. No, sir.

Commissioner MEEKER. The same is true of stopping, of course?

Mr. KELLOGG. The same would be true of stopping. Of course, on stopping any car the matter of standing people up on their ears is a pure question of the motorman. With a car equipped with air brakes, careless braking is always possible regardless of the weight of the car; but the acceleration is entirely a matter of the weight of the car and the capacity of its motors, friction loss, and so forth.

Commissioner MEEKER. There is no greater possibility of standing the passengers on their ears in stopping with the Birney car than with the old-fashioned car?

Mr. KELLOGG. I should say not; no.

Commissioner SWEET. Is the motor lighter on these cars than on the heavier cars?

Mr. KELLOGG. Yes.

Commissioner SWEET. Is it in proportion to the weight of the car?

Mr. KELLOGG. In proportion to the weight of the car. The wheels are lighter, the trucks are lighter, the axles are lighter. Weight has been saved in every part of the car.

Commissioner SWEET. It is a single truck, I understand?

Mr. KELLOGG. Single truck; yes.

Commissioner SWEET. Do the cars ride as easily as the others? Is there any difference in that respect?

Mr. KELLOGG. They ride as easily as any single truck.

Commissioner SWEET. Well, not as easily as a double-truck car?

Mr. KELLOGG. Probably not, although their lightness makes them ride a little bit easier.

Commissioner SWEET. A little easier?

Mr. KELLOGG. I think it does; yes.

Commissioner SWEET. That is not true of automobiles, is it?

Mr. KELLOGG. No.

Commissioner SWEET. The heavier automobiles ride easier, do they not?

Mr. KELLOGG. I think they do; yes, the ones I have ridden in.

Commissioner SWEET. Why is not that true of cars?

Mr. KELLOGG. Well, the case—you are talking now about single-truck cars, of course?

Commissioner SWEET. I am comparing the single-truck car of the Birney type with a double-truck car.

Mr. KELLOGG. Well, of course, no single-truck car will ride as smoothly as the double-truck car.

Commissioner SWEET. That is what I had in mind.

Mr. KELLOGG. I misunderstood your question.

Commissioner SWEET. So there might be objection from the passengers?

Mr. KELLOGG. Yes; that is one of the causes of the battleship type in the old days.

Mr. WARREN. The public used to object to the double-truck cars, as I remember it.

Mr. KELLOGG. Yes.

Mr. WARREN. Is this a longer wheel base?

Mr. KELLOGG. It is an 8-foot wheel base. It is rather longer for the weight of the car. I think the car rides rather more easily than the average car for that reason.

Commissioner SWEET. What is the method of payment of fare in these cars?

Mr. KELLOGG. As a rule a recording fare-box is used, but that is not universal.

Commissioner SWEET. That is in the front end of the car?

Mr. KELLOGG. Yes; the entrance and exit are both at the front end.

Commissioner SWEET. Is it necessary at the end of the route to turn these cars around?

Mr. KELLOGG. That depends on track conditions. Some companies have a Y and use a single-end car. Others prefer a double-end operation or are obliged to use it and have double-end cars. That is more a matter of track arrangement than car arrangement.

Commissioner SWEET. In that case only the front door would be accessible to passengers?

Mr. KELLOGG. Well, in the case of the double-end car, there would be an exit and entrance from either end.

Commissioner SWEET. From either end.

Mr. KELLOGG. Yes; and as a matter of fact the single-end cars as a rule have a safety door at the rear so the passengers can get out that way. But single-end and double-end operation are a question of track in almost all companies—that is as to whether the car goes around a loop or a Y at the end of the line or turns the trolley and goes back.

Commissioner SWEET. In the one-man car is the motorman the one who keeps track of the payment of fares by passengers?

Mr. KELLOGG. He is sometimes called the motorman-conductor. He is a combination of motorman and conductor.

Commissioner SWEET. Is he supposed to see whether they put their fare in the box?

Mr. KELLOGG. Yes, sir. While the car is standing still he has nothing else to do, and it is proper that he should be watching the passengers, because he can not start the car until the door is closed.

Commissioner BEALL. On the Birney car you only use the front door, do you not? You do not let passengers get on and off from the rear door except in case of accident?

Mr. KELLOGG. No.

Commissioner BEALL. I do not think Mr. Sweet quite caught that.

Mr. WARREN. They all have to pass the motorman as they get on.

Mr. KELLOGG. They all have to pass the motorman as they get on; yes.

Mr. WARREN. Mr. Sweet asked one question about the ease of the car. Does this car have any overhanging platforms?

Mr. KELLOGG. Overhanging in what respect?

Mr. WARREN. I mean like the ordinary car, does it have a platform at each end which extends the length of the car and tends to give it a teetering motion?

Mr. KELLOGG. It has proportionately as much platform as other single-truck cars; yes.

Mr. WARREN. I suppose the single-truck car requires a track in better condition for the same amount of riding than a double-truck car does; does it not?

Mr. KELLOGG. It does. But it is a fact that the trucks of the Birney cars are designed to ride rather better than the normal single-truck cars.

Commissioner SWEET. How does the Birney car compare with the heavier double-truck car in the wearing out of the track?

Mr. KELLOGG. Well, assuming that the wear and tear on track is largely a matter of tonnage, it would be less. How much less is unknown.

Commissioner SWEET. That would be partly offset by the greater speed of the Birney car. Would it not, or would it?

Mr. KELLOGG. The difference is rather too slight, I think, to make very much difference, because the running speed and the full speed attained is practically the same in the other cars. The question is in the acceleration in starting and stopping.

Commissioner SWEET. I notice you do not seem to make any difference in your recommendations there with regard to climate. Don't you think that the Birney car is better adapted to the cities in the southern part of the United States rather than the extreme north?

Mr. KELLOGG. There is no question about that; that is perfectly true.

Commissioner SWEET. Or cities like Seattle, which, although in the north, do not have a great deal of snow.

Mr. KELLOGG. Yes; that is perfectly true.

Commissioner SWEET. Before a real test can be made of these cars, don't you think that a great deal more time must elapse so that the public taste with regard to the matter may be better determined?

Mr. KELLOGG. That is perfectly true. It is a new thing.

Commissioner SWEET. So that it would be stretching the point somewhat, do you not think, for the commission to make any particular recommendation with regard to these cars?

Mr. KELLOGG. Oh, I think for the commission to hang anything definite on as relatively new a proposition as this, especially with its limited application, would be very dangerous.

Commissioner SWEET. About the furthest the commission could possibly go, it seems to me now, would be to suggest the possibility that, with the incentive that there is at the present time and perhaps that there has been during the war more than in ordinary times, economical improvements such as this might be introduced through the street-railway services of the future that would cut considerable figure?

Mr. KELLOGG. Yes.

Commissioner SWEET. Which is true, is it not?

Mr. KELLOGG. It is true. And the company is studying these things all the time. The work of this committee, for example, has been along the lines the association has been studying year in and year out.

Commissioner SWEET. What is that committee? Describe it a little more fully.

Mr. KELLOGG. The committee I have reference to is on one-man operation. The American Electric Railway Association is the parent association, called the American Electric Railway Association, and then there are two affiliated organizations which are really part of the main organization. One of them is the American Electric Railway Transportation & Traffic Association, and this committee of which I am chairman is one of four committees which have been appointed this year—that is, the year which will end in October at the convention—to study various features and report on them to the convention. And these committees during the year either send out questionnaires or study the matter in any way they can, the idea being that at all times there are various matters in process of study on the part of the industry, and one of the main functions of the American Electric Railway Association is to study these things at all times. That is what it was organized for.

Commissioner SWEET. And give all the members of it the benefit of the accumulated knowledge that can be brought together by these committees when they make their reports?

Mr. KELLOGG. Yes.

Commissioner SWEET. Which, of course, is a very good system.

Mr. KELLOGG. That is what the association was organized for many years ago.

Commissioner SWEET. In small communities, and as a means of going from one rather small community to another not very far away, that kind of a car would seem to be exceedingly useful, would it not?

Mr. KELLOGG. Do you mean a small interurban?

Commissioner SWEET. Well, you might call it interurban, or I think it has been spoken of as a shuttle. Suppose there were two villages or small communities, neither one of which would be able to support a street-car system, and yet with a certain amount of business between them.

Mr. KELLOGG. Yes.

Commissioner SWEET. If there was enough interchange there to justify it—that is imaginable—a car of this kind would come into

play a great deal quicker than the heavier double-truck car with two men?

Mr. KELLOGG. No doubt about it.

Commissioner SWEET. One operated so cheaply. It might be serviceable between such places where they could not begin to afford one of the heavier cars with two men operating it.

Mr. KELLOGG. Yes; that is true.

Commissioner BEALL. You can not run any single truck at the average interurban speed, not even with the old type, can you?

Mr. KELLOGG. Not with the average interurban speed. Of course there are interurbans and interurbans.

Commissioner BEALL. But if you are going to give your passengers rides with a good speed you can not do it. Have you ever ridden on them?

Mr. KELLOGG. Yes.

Commissioner BEALL. It depends on the speed, and I do not care how good your track is either.

Mr. KELLOGG. Well, there are lines where, as Mr. Sweet says, two communities are not very far apart—

Commissioner BEALL. Yes, if they are close enough—but not a real interurban.

Mr. KELLOGG. No.

Commissioner SWEET. I did not have in mind what you call a regular interurban.

Mr. KELLOGG. An interurban generally means a pretty high-class road with a private right of way, good track, well ballasted, and high-speed cars, very different from city service.

Commissioner SWEET. Take a city like Washington, where about 4 or half past 4 in the afternoon when the department clerks want to go home, there is a great congestion; that you would call the peak?

Mr. KELLOGG. Yes.

Commissioner SWEET. And, I should imagine, a pretty big peak, would it not be?

Mr. KELLOGG. Yes.

Commissioner SWEET. In this city the peak would perhaps be larger than in many other cities.

Mr. KELLOGG. On account of the large number of employees off at the same time.

Commissioner SWEET. Yes.

Mr. KELLOGG. Yes; I should think so.

Commissioner SWEET. With your regular equipment of heavy cars, if you wanted to take care of that peak, why could not you treat this single man as an assistant, an aid in carrying the load during that peak?

Mr. KELLOGG. For tripper service, you could.

Commissioner SWEET. And if there were very slack hours of the day, we will say from 9 o'clock to 12 or 1 in the morning, there are periods when it is necessary to run some cars but when the travel is comparatively light. Why would not a car of that kind answer the purpose and save in various ways in operation and in the various ways you have pointed out?

Mr. KELLOGG. It would. Of course, it all depends on each individual line. You can not make a general rule. You would have to take each line and analyze it. If they were planning to install

these Birney cars here in Washington they would want to analyze each of their lines and take each line on its merits and see if that line was apparently one where those cars would work out. They would probably get some one who had operated them and get his advice on it, or else take a line where from all the information they could get it appeared they could make a saving and just get the cars and try them. That is really the way the thing has developed all over the country, just by trial.

Commissioner SWEET. That is all.

The CHAIRMAN. If I understand your testimony correctly, the principal object of the one-man car is to save.

Mr. KELLOGG. No; that was not what I said.

The CHAIRMAN. Well, let us see. By the use of the one-man car you will save capital, will you not, because it costs less to buy a one-man car than it does a large standard car?

Mr. KELLOGG. If it replaces a car you already have, of course it means more capital.

The CHAIRMAN. You also save in power used to propel that car?

Mr. KELLOGG. Yes.

The CHAIRMAN. And you save in wages for employees?

Mr. KELLOGG. Yes.

The CHAIRMAN. And you save in the maintenance of the car?

Mr. KELLOGG. Yes; the amount unknown.

The CHAIRMAN. And possibly maintenance of your track?

Mr. KELLOGG. Yes.

The CHAIRMAN. You also save in fixed charges upon the capital employed?

Mr. KELLOGG. Well, there again the saving is problematical, if you replace existing cars that are in perfectly good condition with other cars. If you will pardon the suggestion, the investment feature of Birney cars is a burden and not a benefit. In other words, the Birney car has got by its economy to offset additional investment. It is not really a saving. The investment feature is a negative feature.

The CHAIRMAN. Might there not also be a saving in the amount of depreciation which you find it necessary to set aside?

Mr. KELLOGG. As to that, experience has not been quite long enough to be certain. Of course, these cars are a good deal lighter, and some people think there is more depreciation on them, just like there is more on a Ford than there is on a Packard. But it is simply something we have not got the experience on.

Commissioner MEEKER. And the Ford never wears out, while the Packard does.

Mr. KELLOGG. Well, that is what the protagonist for the one-man car would say.

The CHAIRMAN. The advantages come, as I understand, from your being able to start and stop more quickly?

Mr. KELLOGG. Yes; we class the greatest advantage as improved service.

The CHAIRMAN. And greater speed between points. Those are your principal advantages?

Mr. KELLOGG. Yes.

The CHAIRMAN. Now, summarizing the savings as well as the advantages, is not the whole matter of peculiar benefit to the company?

Mr. KELLOGG. I think three people benefit from it, if you will pardon the suggestion. I think the public get a great deal better service where that is feasible under the conditions—

The CHAIRMAN. We will take up the service next; but is it not a peculiar benefit to the company?

Mr. KELLOGG. By "peculiar" do you mean eliminating others?

The CHAIRMAN. I am not eliminating anything. I am asking you that direct question, and you can answer it.

Mr. KELLOGG. It is of benefit to the company.

The CHAIRMAN. That is what I thought. Now is it not also true—

Mr. KELLOGG. I was not trying to quibble, but I wanted to raise the point that the company was not the only beneficiary.

The CHAIRMAN. I am not trying to get you in a trap.

Mr. KELLOGG. Yes.

The CHAIRMAN. Is it not also true that your ability to use this equipment more readily than the heavier equipment, and perhaps the greater saving to the company, will be the real benefit to the public?

Mr. KELLOGG. Yes; it will.

The CHAIRMAN. In that you can give them better and perhaps more prompt service?

Mr. KELLOGG. Yes.

The CHAIRMAN. That being so, why is it not a very good thing to advocate the use of the one-man car just as much as possible?

Mr. KELLOGG. I think it is a good thing.

The CHAIRMAN. If it is a good thing for the companies as well as for the public—

Mr. KELLOGG. And for the trainmen.

The CHAIRMAN. And for the trainmen—why should it not be a good thing for this commission to advocate the use of such a car?

Mr. KELLOGG. I think they should advocate it wherever it can be used to advantage.

The CHAIRMAN. How many companies are there that manufacture equipment, cars?

Mr. KELLOGG. I only know of two. There may be more. There is the J. G. Brill Co. in Philadelphia and the St. Louis Car Co. of St. Louis. Mr. Beck is here. Is that right, Mr. Beck, or are there more?

The CHAIRMAN. Are those two separate companies?

Mr. KELLOGG. They are two separate companies. Are there more than that? The Brill Co. and the St. Louis Car Co.

Mr. BECK. Those are the two principal companies, although others are in the business.

Commissioner BEALL. The Pullman Co. still makes cars, although I do not know but that during the war they stopped making them.

The CHAIRMAN. So there are three companies then that manufacture street cars?

Mr. KELLOGG. The only ones I know of are the ones I mentioned.

Commissioner BEALL. Who swallowed up the Kuhlman Co.?

Mr. KELLOGG. I think the Brill Co. took them over.

Commissioner BEALL. Did the Brill Co. take them over?

Mr. KELLOGG. I think they did. I am not sure of that.

The CHAIRMAN. Is there any relation existing between those companies by stock ownership or directorship or anything else?

Mr. KELLOGG. None that I know of.

The CHAIRMAN. Which company manufactures the Birney car?

Mr. KELLOGG. They both manufacture it. It is not patented.

The CHAIRMAN. It is not patented?

Mr. KELLOGG. No; nothing about it patented.

The CHAIRMAN. That is very singular.

Mr. KELLOGG. It was given to the world by the inventor.

Commissioner GADSDEN. Does not the Cincinnati Car Co. make cars?

Mr. KELLOGG. Maybe they do.

Commissioner GADSDEN. I know they do.

The CHAIRMAN. Is the Cincinnati company a subsidiary of any of the other companies you mentioned?

Mr. KELLOGG. Not that I know of, but I really could not testify anything about that definitely. I say negatively that I do not think they are.

The CHAIRMAN. If it could be proved advantageous to generally use the Birney car, would it not mean a replacement of a lot of equipment now in service?

Mr. KELLOGG. To such an extent as they could be used to improve the situation, I should say yes.

The CHAIRMAN. Are any of the companies you know of in position now to buy these new cars and use them for equipment which they now have which is serviceable?

Mr. KELLOGG. Do you mean are they financially able?

The CHAIRMAN. Yes.

Mr. KELLOGG. Well, I dare say a number of companies might be. I do not happen to know enough about things to know directly. Most street-car companies are nearly broke now.

The CHAIRMAN. Is it not true that these replacements must be very gradual, if at all, on account of the financial condition of the companies?

Mr. KELLOGG. Yes; and even if they had the money, they would have to go at it gently, one line at a time.

The CHAIRMAN. Then the one-man car is not an expedient that can remedy the present situation?

Mr. KELLOGG. No. As I said this afternoon, it is not a panacea; it is not something that you simply fill in a blank check and say that is all there is to it. It is a great help in some cases.

The CHAIRMAN. Why is the Amalgamated Association opposed to the one-man car?

Mr. KELLOGG. You are asking me to read the mind of that gentleman. I can not do it.

Commissioner BEALL. What is his argument? You say he objects to it. You say you have read his objection. What does he say, ostensibly?

Mr. KELLOGG. Ostensibly, he says the car is not safe; it is put out by the companies simply to save money; the trainmen do not like it; they get more work out of the men, and it is just a device to cut out labor and deprive men of their jobs—the usual talk that emanates from that source.

The CHAIRMAN. The questionnaires that you sent out covered that question pretty thoroughly, didn't they?

Mr. KELLOGG. Not very fully. We did not think it was worth while asking questions about it except as to how the trainmen felt; and those answers I gave.

The CHAIRMAN. Has there been a real protest by the employees of the companies where the one-man car is in use?

Mr. KELLOGG. There have been about 10 per cent of the cases so reported.

The CHAIRMAN. Did those protests result in any strike?

Mr. KELLOGG. Not that I know of. I think not.

The CHAIRMAN. Do you believe that the use of the one-man car could be so arranged as to take care of the present labor without any grievance?

Mr. KELLOGG. Absolutely. That is my opinion.

The CHAIRMAN. That being so, why should the Amalgamated Association or the unions object to it?

Mr. KELLOGG. The only reason I can think of is a general desire to oppose anything which seems to take a man out of a job. That is to say, I think they oppose labor-saving devices on general principles, their purpose being to keep labor employed.

The CHAIRMAN. From the experience you have had and the study you and your committee have made, do you believe that the one-man car will give satisfactory public service?

Mr. KELLOGG. Wherever conditions of traffic are right, I do.

The CHAIRMAN. Is it necessary to have a better roadbed in order to give good service with the one-man car?

Mr. KELLOGG. Compared to former single-truck cars, do you mean, or former double-truck cars? Of course it depends.

The CHAIRMAN. Single-truck.

Mr. KELLOGG. I do not think any single-truck car can ride quite as smoothly as a double-truck car. To answer that question we would necessarily have to presuppose former conditions, which vary a good deal.

The CHAIRMAN. Well, I can see that if we wanted to pursue that inquiry it would consume considerable time; so we will not pursue it.

Mr. KELLOGG. I am not trying to dodge it, but I mean to answer it categorically you would have to know what the conditions were before.

The CHAIRMAN. That is all.

(Witness excused.)

STATEMENT OF MR. FRANK J. SPRAGUE.

Mr. WARREN. Your full name is?

Mr. SPRAGUE. Frank J. Sprague.

Mr. WARREN. You are a graduate of the Naval Academy?

Mr. SPRAGUE. Yes, sir.

Mr. WARREN. You are a member of the Naval Advisory Board, or were during the war?

Mr. SPRAGUE. Yes, sir.

Mr. WARREN. I think you were formerly associated with Thomas A. Edison?

Mr. SPRAGUE. For a short time.

Mr. WARREN. And you organized, did you not, and operated, the first commercially successful electric railway in this country, in Richmond?

Mr. SPRAGUE. I equipped it. I did not operate it.

Mr. WARREN. You equipped it?

Mr. SPRAGUE. Yes.

Mr. WARREN. That was in 1888, was it not?

Mr. SPRAGUE. In 1888.

Mr. WARREN. You also developed the multiple control—

Mr. SPRAGUE. The multiple-unit control for train operation, yes.

Mr. WARREN. Which made it possible to operate cars in trains instead of single units?

Mr. SPRAGUE. It is the basis of operation of all subway and elevated-train operations.

Mr. WARREN. You really were at the very beginning of the electric railway in this country, were you not?

Mr. SPRAGUE. I suppose I might be called the midwife of those certain interests.

Mr. WARREN. Would you mind telling this commission, because they are studying that, what you experienced and discovered as a midwife to this industry and whether you feel satisfied with the child, now that it has grown up.

Mr. SPRAGUE. Well, really, Mr. Chairman, I do not quite know why I am here, unless it is to carry out a practice that is oftentimes common. I am reminded of an institution which was rather famous in London and had its replica in New York, known as Mrs. Jarley's Wax Works, and in New York it was the Eden Musée. All tourists were invited to these places to see what people looked like who had been identified with either politics or crime or scandal or literature.

I am not directly interested at present in electric railways. My work for a number of years was in development, in promoting and equipment, either directly or through my agents. I built the first modern road in this country and in Italy and in Germany. And if you are interested at all in the history of it, I, of course, can give you some information on that subject.

The CHAIRMAN. I do not think we should forego the privilege of hearing from the midwife.

Mr. SPRAGUE. Well, it may have a bearing upon the principle that I think ought to be observed in the relation between communities and electric railways.

There is an impression that when an individual or a group get a franchise they are immediately embarked on a sure thing toward a very happy return. But my impression is that it is very much like getting a patent out of the United States Patent Office; it is an invitation to a costly contest. Oftentimes they sink capital in the hope of some ultimate reward.

I am not interested in any electric-railway securities. I do not own a bond and have not a share of stock. I am not a member of any concern who is interested in dealing with electric securities. So my opinion is no more than that of a looker-on from the outside, because my present interests are quite in other directions.

I think perhaps the history of the growth of the electric railway illustrates very clearly that there are two sides which have got to be considered; not the community alone on the one side, but those who take the risks in electric-railway development.

In 1887 I took the contract for the Richmond Union Passenger Railway. I had more hope than sense; more confidence than experience. The basis of experience was that of experiments which I had been carrying on on a private track on the elevated railroads in New York City, or a short branch of them. And when I took the contract for the Richmond road we really proceeded on the basis of a blue print. That contract called for the equipment of 40 cars, 80 motors, a small central station in connection with the overhead line, to be built in 60 days and to be paid for, \$110,000, if satisfactory. Most people would say that is an insane contract. Judged from ordinary commercial principles it was. But on several occasions I have had to make precisely that same kind of contract to carry through some enterprise in which I have been interested, and I have been interested in quite a number of popular developments. I have had to take the risks.

At that time the Richmond road as a road did not exist. It was simply a franchise belonging to a lot of New York politicians. It cost us nearer \$200,000 and it cost my company over \$100,000—the wrong side.

The CHAIRMAN. To get the franchise?

Mr. SPRAGUE. No; I mean to carry out the contract. It cost them nearly \$200,000 and we lost over \$100,000; but it began this business. Well, that is 31 years ago.

I look over the field and I see the electric railway has perhaps had the most remarkable growth of any industry in the world in the same time. It represents to-day, in the United States alone, I guess, \$6,000,000,000; gross revenues of nearly three-quarters of a billion; men employed, about 300,000. There has been one continual demand on the part of the public for the betterment and the increase in service.

I look back at the Richmond road. I could not find a vestige of equipment to-day for historical purposes, not a pound of copper on that entire road. The growth of the art required it to be gradually abandoned; it wore out. The first motors used were only $7\frac{1}{2}$ horsepower, two on a car. The cars were of the ordinary street-car type finally with special truck. The duty put upon the motors was at least 100 per cent more than they could reasonably expect to carry. They were operating with 30-pound rails laid in Virginia mud. They could not run a single trip without repairs. Sometimes we had 80 motors going, sometimes 2. And if the people interested in that had not stuck to it, the electric-railway growth would have been postponed some years.

In that time there has been a rather curious ratio of increase in certain matters connected with electric railways. The cost of the cars, the weight, the power of the motors have all been just about quadrupled. The cost of tracks has increased from six to eight times. In the last 15 or 16 years the revenue per car-mile has increased about 50 per cent. The operating cost has about doubled. The taxes have about doubled. The net return per car-mile has remained almost stationary.

Within recent years, owing to the general increase of prices in everything, the cost of equipment, the cost of upkeep, the cost of operation of every electric railroad in the country has been very materially and very gravely increased; and it seemed to be about the one business—that is, the selling of transportation—in which there has been a fixity of unit return with a constant increase of the cost.

Now many of those increases of cost have been due to the ordinary increases in cost of material and labor, but many of them have been due to Government action, to decisions in which the railroads had no voice whatever.

There is another direction in which that rather curious relation has been evidenced. I think the taxable area and the livable area of a great many of our cities has just been about quadrupled for the same nickel ride. I can give you a single instance in which I suppose, contrary to the knowledge and belief of a good many people, a single invention has meant hundreds of millions of dollars to one community.

The CHAIRMAN. To one what?

Mr. SPRAGUE. A single invention has meant hundreds of millions to one community. Take the multiple-unit system, to which reference has been made. That is a system in which, instead of a train being operated by a locomotive, as in steam, cars are individually equipped with motors and controllers and with master controllers and train lines in such fashion that any number of cars can be assembled into a train in any end relation or sequence or number, and the characteristics of the train operated from either end of any car are identically the same as the characteristics of a single unit; which means that an 8 or 10-car train can make the same schedule—the same stops with the same maximum speed—that a single car would. Now, that is the basis of operation of all subway and elevated railroads.

I spent two years in trying at my own expense to get that system introduced on the elevated railroads in New York. On two different occasions I proposed to the directors of that company that I would, at my own expense—which would have been a very heavy expense—demonstrate that they could save a thousand dollars a day in coal alone on the elevated railroads and increase their running schedule, increase their capacity, and decrease their strain on their structures.

Commissioner MEEKER. That is when they were still operating under steam?

Mr. SPRAGUE. Yes; but electric railways in other directions were being used, of course, all over the United States and the world. I finally got the opportunity to try out that system in Chicago, still as a personal venture. Well, the Chicago South Side Elevated Railroad, which was a steam railroad, got in the hands of a receiver and the stock went down to about 32 or 33, and I took the contract and we lost \$100,000 in carrying it out, and the road in a year had benefited to the extent, as represented by the increase in the stock, to somewhere about 105 or 110. That was the first instance in which that system was used, and then it was afterwards adopted in Boston and Brooklyn and New York.

Now, its value to the city of New York is measured by the cost of the subways which would have to be built to give equivalent capacity

operated in any other way, and that cost would have been over \$100,000,000 in excess of the present cost of the subways. And it added several hundred millions of dollars to the property values in New York City and a great many scores of millions to the operating taxable receipts. Nobody got any benefits from that. I did not as an inventor, except in a very small sort of way. The manufacturing companies did not, except in a small sort of way, but the public got it all.

There is another direction also in which there has been that curious expansiveness of ratio. The distance which people can ride to-day is oftentimes about four times what they could in the early days of the electric railroads for the same cost.

Now, it seems to me there must be a basic principle underlying the relation between a community which is served by an electric railway and those who are interested in this property, and that has got to be simply one of fair dealing. It is absolutely impossible to keep up the operation of electric railways unless the return gives something to those who put the money into it, otherwise they had better get into some other business; in fact they would have to. The welfare of a community is inseparably connected with the welfare of the means of communication and transportation. You can not destroy the one without gravely hurting the other.

Commissioner MEEKER. May I ask a question there?

Mr. SPRAGUE. Yes.

Commissioner MEEKER. You spoke of the general public's reaping all the benefits of your invention. Is that wholly true? Did not the stockholders reap some benefit? You spoke of the stock of the Chicago Elevated being at 32, I believe, and going to 105 as a result of installing the electric system.

Mr. SPRAGUE. I think possibly, if I may, you have misunderstood me. I did not say that in all cases. I said in that particular instance, which was a very remarkable instance—that of the introduction of the multiple-unit system in New York City, those who were responsible originally for it received practically nothing; the public got the chief benefit, and I think that so far as individual quotations of the Interborough stock of New York City, perhaps they feel that they have not got the benefit of it. I do not know; I am not interested in it at all.

Personally, in looking over some of the testimony that has been given here, I do not know that there is anything I personally can add to the facts that have been presented in such an able way by gentlemen like Mr. Tripp and Mr. Pardee and the host of operating and expert railway men that are here. If I can answer any questions I will be very glad to, but I do not want to burden the record.

The CHAIRMAN. What business are you now engaged in?

Mr. SPRAGUE. Well, the usual business of spending a lot of money in the hope of getting a return. I am at present the president of the Sprague Speed Control & Signal Operation, and I have been interested in the past five years—excluding the two years we have been at war, when I have been giving most of my time to the Government—in developing a system which ties together the braking system and wayside-signal system of a railroad to make rear-end collisions and head-on collisions impossible in steam-railroad operation.

The CHAIRMAN. You said that you had been—

Mr. SPRAGUE. It is a pretty large enterprise, and a great deal of money, running into many hundreds of dollars, has been spent, but it is very uphill work on account of the present condition of the railroads and also their reluctance to depart from present practices.

The CHAIRMAN. You stated that you had been engaged in promoting and developing railroads and equipment in this country as well as in Europe.

Mr. SPRAGUE. My activity has been mostly in this country.

The CHAIRMAN. How many years were you engaged in this work in Europe?

Mr. SPRAGUE. Well, my work there has not been direct; it has been through the people that control my interests there.

The CHAIRMAN. Are you quite familiar with the electric situation throughout Europe?

Mr. SPRAGUE. No; not in detail.

The CHAIRMAN. Have you kept track of the results of operations during the period of the war over there?

Mr. SPRAGUE. No, sir; I have not. For the past five years I have been too absorbed in my own work.

The CHAIRMAN. Do you know whether the electric lines over in Europe are suffering from the same financial disease that they are over here?

Mr. SPRAGUE. I do not see how it can be otherwise.

The CHAIRMAN. Commissioner Clark presented evidence to the House Committee of Interstate and Foreign Commerce day before yesterday which showed that the steam railroads in England had operated during the war at a profit and without increasing the freight rate. I have not analyzed the figures nor the statement—

Mr. SPRAGUE. This is the steam railroads?

The CHAIRMAN. That is the steam railroads. Now if that has applied to the steam railroads in Europe, why has not the same thing applied to the electric lines at the same time?

Mr. SPRAGUE. I might ask you why has it not applied to the steam railroads of the United States, which have been run at an extraordinarily heavy loss during the war. I think the only fair comparison there is steam railroads against steam railroads.

The CHAIRMAN. You think that is a fair comparison?

Mr. SPRAGUE. Yes.

The CHAIRMAN. I was just wondering though, how it happens that the industry as a whole, steam lines as well as electric lines, is in so much difficulty over here when perhaps the same conditions do not apply in Europe, where the war really has been going on.

Mr. SPRAGUE. Well, I do not think the same conditions do exist in any two countries; the same condition as to franchises and taxes and cost of labor, methods of charging fares. Of course on a great many European roads what is called the zone system of charging is in operation. Personally, I believe it is the only fair system. We have the American habit of thinking we can get for a nickel the absolute limit of return. You can not do it, unless somebody pays the price. I can see no reason why one man should ride two or three blocks and pay a nickel and another may ride 20 or 25 miles and pay the same price.

The CHAIRMAN. You have had a good deal of experience in promoting railroads in this country?

Mr. SPRAGUE. No, sir; I have never been a promoter of railroads at all. My work has been entirely on the technical side—that is, the promotion of the idea of the use of electricity in pretty nearly everything it can be used for, for power.

The CHAIRMAN. The only road which you have mentioned as being interested in is the Richmond road. Have you been interested in other roads?

Mr. SPRAGUE. Well, I equipped at least 150, I think, in the first two or three years.

The CHAIRMAN. When you speak of equipping, you mean you sold equipment to those roads; do you?

Mr. SPRAGUE. We supplied the electric equipment.

The CHAIRMAN. Did you own stock in those roads?

Mr. SPRAGUE. Not a dollar.

The CHAIRMAN. You were simply a selling man?

Mr. SPRAGUE. We were simply equipping them, supplying the lines, and trying to convert the public to the idea that electric roads were the thing to use.

The CHAIRMAN. Have you been brought into close contact with any of the promoters of these roads?

Mr. SPRAGUE. No; very little.

The CHAIRMAN. Do you know whether the promotion has been successful from a financial standpoint?

Mr. SPRAGUE. It has been at times, and at times it has been very disastrous.

The CHAIRMAN. Generally speaking, what is your judgment?

Mr. SPRAGUE. Well, I hope, and I think it is entirely true, that the larger portion of those who ventured into the promotion of electric railways made a profit, if they let go soon enough.

The CHAIRMAN. The Richmond road was built 31 years ago. There is not a pound of copper or a single piece of equipment left?

Mr. SPRAGUE. I do not think there is.

The CHAIRMAN. That shows a very rapid improvement in the art.

Mr. SPRAGUE. Necessarily.

The CHAIRMAN. Do you suppose that we have reached the maximum improvement of the art?

Mr. SPRAGUE. Pretty nearly; yes.

The CHAIRMAN. Pretty nearly?

Mr. SPRAGUE. Yes; looking at it from the mechanical construction point of view. Motors have been brought to a remarkable degree of perfection. I think they are perhaps the most reliable piece of mechanism to-day in operation. There is very little possible increase in efficiency—that is, in the ratio of conversion of electric energy into power. There is almost a negligible margin; and the same way with generators. Generators for example, to give an illustration: At Richmond I think we used—well, the generators were about possibly 100 horsepower as a maximum, driven by small steam engines. A single unit to-day of a generating plant is 40,000 kilowatts or more. Now, it has been the same in stationary-motor business, in the transmission of power, as it is in the electric railway. There has been that enormous increase. Now, the efficiency of those big generators is way up until there is not over 2 or 3 per cent left that is converted into heat; and it must be, otherwise they would go to pieces. And

as to mechanisms, I can not conceive of very much improvement in them.

The CHAIRMAN. Let us see. Are you mindful of the fact that Congress passed a special bill here this winter authorizing the patenting of an electrical device by which—I can not describe it technically—a small mechanism weighing about 50 pounds would generate 150 horsepower?

Mr. SPRAGUE. Well, a turbine—

The CHAIRMAN. No; this is not a turbine.

Mr. SPRAGUE. Of course, the turbine, the steam side of every high-speed generator set, is an extraordinarily light equipment. But if the claim has been made that generators are built with any such ratio of weight to output, I flatly say it is impossible.

The CHAIRMAN. Well, this person got a special bill through upon the promise that his device would completely revolutionize the electrical world; you could run street-cars and run engines by this small mechanism.

Mr. SPRAGUE. I know. That universal claim at once condemns it.

The CHAIRMAN. If it should happen that such development could be perfected, then there would be a very great improvement in the art?

Mr. SPRAGUE. Then you could scrap everything there is.

The CHAIRMAN. Yes.

Mr. SPRAGUE. But such a thing, you may put your judgment down, is impossible. This art is one of evolution, not revolution.

The CHAIRMAN. I suppose 20 years ago you and I would have agreed that the man who said they could fly across the Atlantic Ocean in 24 or 36 hours was crazy, but they are doing it.

Mr. SPRAGUE. I do not know what my opinion would have been at that time, and I venture that perhaps you might have been a little hesitant about saying a thing was impossible. But the electric art for the past 40 years has followed perfectly clear lines of development.

To give you an illustration in another branch of electric art, I am old enough to recall when one Dr. R. V. Pierce used to have an advertisement running in the patent insides of almost every country newspaper, called "Pierce's Golden Medical Discovery." It is not necessary for me to explain. Pierce was not satisfied with the return he was getting from his patent medicine and he thought he would go into the mining business. And some promoters convinced him that there was a river called the Feather River out—I think in Nevada, but I am not quite sure; somebody here can correct me—where there was a great source of possible wealth if it could be drained, because of an assured placer mine.

Well, he and his associates short-circuited a bed of that river by a tunnel which drained the river. This was really before the electric-railway business got going—I think it was about 1887. I made a contract with Pierce for supplying him a number of motors which were operated from 600 to 1,000 volts pressure over a maximum distance of 5 or 6 miles. I think the largest unit was perhaps 6 or 7 horsepower. When they got the bed of the river uncovered, it was so full of boulders that it was simply impossible to try any placer mining, and the enterprise was a failure.

That location now is the site of the great Western Power Co.'s great plant, and instead of a mechanism of 1,000 volts they are transmitting it at over 100,000 volts; instead of a distance of 5 or 6 miles they are transmitting it 100 to 150 and 200 miles; instead of units of 5 or 6 horsepower they are dealing with units of twenty or thirty thousand horsepower or more.

Now, that jump from those miniature equipments and distances and pressures to the enormous pressures and powers and distances now in use was a perfectly progressive one, a gradual increase in size, increase of efficiency, increase in the method of manufacture; and I do not think that there is any possibility of any departure from that evolutionary process, and I do not think that one man in 10,000 would lay down a dollar based upon that possibility which you suggest. I know I would not, and I have gone through a good deal of it. There is no such hope to a man as an inventor.

The CHAIRMAN. Then are you quite confident that in the future the item of obsolescence will be a very much less factor in railroad development than it has been in the past?

Mr. SPRAGUE. Yes.

The CHAIRMAN. Investors can thus put their money into a plant with a certain realization that the industry is going to continue along certain well-defined lines and the property is not going to be scrapped?

Mr. SPRAGUE. Yes; I do.

The CHAIRMAN. Now ought that to invite credit and give confidence to investors?

Mr. SPRAGUE. Yes; and I will tell you another reason why. For a long time there was a very unfortunate controversy in this country between advocates of what is called direct-current and alternating-current apparatus. There were those who, like myself, believed because of certain fundamental facts, that direct-current motors were the most satisfactory ones to be used on railways and alternating current for the transmission of the power. There were others who believed that what is called single-phase operation of motors was the coming method of running street railways. You have here within gunshot of where you are sitting a typical example of that controversy, and its unfortunate results, in the Washington, Baltimore & Annapolis Railway. There is an enterprise which for a long time was considered a natural electric-railway proposition in competition with steam, and being in competition with steam railroads between here and Baltimore, those who were active in its promotion sought to get the maximum amount of economy. I advised against their decision. It cost them a very large amount to learn their lesson, and they finally had to change over and operate the road by direct current. So that particular controversy, so far as it applies to street-railway systems, interurban systems, suburban roads, elevated and underground, and—I personally think—others, has been settled. It is no longer subject to dispute or question. So that I think it is perfectly safe to say, as you expressed it, that the time has now come when the public and the capitalists can rely upon the reasonable permanence of the equipment. That does not mean there will not be improvements. Of course there will always be.

Commissioner MEEKER. How about the primary generators of power? Is not there a possibility that the Diesel engine will do away with the old steam engine?

Mr. SPRAGUE. No, sir.

Commissioner MEEKER. Why not?

Mr. SPRAGUE. Too large a capital cost for the outfit. The Diesel engine, which, of course, is an attempt to get a higher thermal result, uses oil instead of coal and uses it directly instead of through the medium of boilers, and is necessarily a very heavy engine in regard to its output. I can see no possibility from the standpoint of first investment, safe, occupied, output, of its ever rivaling the turbine. We do not hear of the Diesel engine, for example, on board ship, except for what we may call low-grade operation—slow steamers, comparatively light power. But where you want great powers, there is no thought of the Diesel engine.

Commissioner MEEKER. However, it is a new engine and it seems to me there may be possibilities of improvement and development.

Mr. SPRAGUE. Well, the Diesel engine has been in existence a good many years and it is a very excellent engine for its purposes. But the old reciprocating steam engine was a very economical and very good and very reliable piece of mechanism, and the steam turbine, weight for weight, enormously outranks it.

The CHAIRMAN. Now, Mr. Sprague, you have borne a very conspicuous part in the development of this industry and you have naturally given very close attention to it. You have seen it developed from a very small industry to perhaps the second largest in the country and performing a very great public service. In recent years you have also witnessed the tremendous development in good roads and in the automobile industry and in the very recent years in the aircraft industry. Now, bearing in mind the very great initiative of the American people, can you for a few moments present to us what you believe to be the future of the electric-railways industry.

Mr. SPRAGUE. Well, the electric-railway industry is going to face greater and greater competition all the while. It is facing it to-day in the automobile. The better your roads, the better your pavements, the cheaper the automobile, the more people who can buy one—the more the electric railway has got to suffer. That is undoubtedly true.

The CHAIRMAN. And will it stand up under the force of this competition and rapid expansion of other lines of activity in transportation?

Mr. SPRAGUE. Well, many of them, the aircraft and the automobile, will create a traffic of their own which is in addition to the traffic that the electric railways will carry.

When the electric light was first introduced it was freely predicted that the day of gas was ended. The incandescent lamp itself has been but little changed in all these years. We have gone, it is true, from a carbon filament to the metallic filament, but the basic principle is the same—a high-resistance filament inside of a vacuum, giving certain standard pressure, and that pressure has remained practically all these years. There has been an improvement in the economy of the lamp. On the other hand, those interested in the gas industry have tried to improve their product and widen the uses of it, and I guess there is more gas used to-day despite the rivalry of the electric light than there ever was in the past.

People get the habit of riding. They do not forsake entirely one method and adopt some other. They simply ride more. And I think the electric railway has a field of its own—meeting competition, of

course, all the while—but if it is well managed, if it is well kept up, if we maintain its standard, it will hold a traffic of its own.

The CHAIRMAN. Will not the improvement such as you have mentioned cause a more general distribution of our population throughout the country, decentralizing the cities and spreading them out into suburban territory on small tracts of land, thus causing more travel?

Mr. SPRAGUE. The more you spread them out the more intercommunication will exist.

The CHAIRMAN. And that will be beneficial to the railroad industry?

Mr. SPRAGUE. Yes; I think so.

The CHAIRMAN. Do you feel hopeful that the electric railway as it now stands is a permanent institution?

Mr. SPRAGUE. Absolutely.

The CHAIRMAN. And such an institution that capital can safely invest in it and people depend on service from it?

Mr. SPRAGUE. They can, if they can be assured of reasonable treatment.

The CHAIRMAN. Now then you know their troubles. What is the remedy?

Mr. SPRAGUE. I say to a certain extent it is a sociological remedy. It is an appreciation by those who are in power in a community.

The CHAIRMAN. Develop that a little further.

Mr. SPRAGUE. To establish as a basis for all dealings with a public-service corporation—I care not whether it be a street railway, gas plant, electric-lighting plant or any others—to establish a basis of fair dealing. They want efficient operation. They demand a very high character of service. They are not willing that that service shall go backward, shall fall off in character. They can not get it if capital will not invest the money, and even if the money is invested, they can not get it unless the road is operated efficiently. It can not be operated efficiently, it can not be maintained, it can not be extended unless there is a reasonable assurance of profit. It is simply selling a service. Many of the elements of the cost of that service are no more under their control than the religion of this country is under mine. Whether it be wages or the cost of materials, they must accept it. They are subject to taxes, they are subject to the possible expiration of their franchises, they are subject to the demands of a good many petty types of politicians who seek to use the expiration of a franchise as a means of driving a public-service corporation to the wall. They gain nothing by it, because if one corporation goes to the wall no other will take its place except also at a profit.

It seems to me there has got to be a basis which means that on a fair capitalization there must be a fair return; if costs go up, the cost of service must go up. If those costs go down, the cost of service should be reduced. The operation, of course, has got to be under public control, and if it is under intelligent control, as it is in many cases, if the books are open and aboveboard and the management open and aboveboard and if the profits which the people seek, no matter whether they are promoting an enterprise or simply investing as capitalists are only reasonable but still sufficient to encourage them, I believe the public itself will accept that situation and pay

a reasonable price for the service. I do not see how it can be otherwise. On everything else that they buy they do accept those conditions. They demand it for themselves.

The CHAIRMAN. Then to summarize your opinion, you must first cultivate a degree of confidence between the industry and the public?

Mr. SPRAGUE. That is the very first thing that is absolutely necessary.

The CHAIRMAN. And that can only be done by having a basis of fair dealing between the industry and the public?

Mr. SPRAGUE. Yes, sir; that is the only way it can be done.

The CHAIRMAN. That means honest performance by the public corporation as well as by public officers?

Mr. SPRAGUE. Yes.

The CHAIRMAN. I never have seen, in my experience as a regulating officer, where the public seriously criticized the raising of a rate or any other order made by a corporation or by the commission where they knew the facts and honestly believed in them.

Mr. SPRAGUE. I think that inevitable. I do not see how it can be otherwise. If people will put in office men in whom they have confidence, and those men have all the facts before them and then render a decision, I believe the public can not help but accept it.

The CHAIRMAN. Then your second proposition is that after this mutual confidence has been established you have got to have a basis of regulation?

Mr. SPRAGUE. Yes.

The CHAIRMAN. By which the public will pay no more and no less than what the service costs, thus assuring to capital a fair reward, to labor a fair wage, and to the public good service at reasonable cost?

Mr. SPRAGUE. Yes, sir.

The CHAIRMAN. Now, the problem of the future then is to work out that basis?

Mr. SPRAGUE. It is. I am reminded of a remark that the late President Roosevelt is said to have once made. I think it was on an occasion of some labor discussion, and the representative of that particular labor element said, "Well, now, finally we have got somebody to listen to us." And President Roosevelt is said to have replied, "Yes, so long as I am President the door of the White House is open to labor just as freely as to capital, but no easier."

The CHAIRMAN. I think your contribution to this commission has been of very great value, Mr. Sprague, and I thank you for it.

Mr. SPRAGUE. I am very glad if I have been of the slightest use to you at all.

The CHAIRMAN. There may be some other examination by other members of the commission.

Commissioner SWEET. Are you the inventor of the Sprague motor?

Mr. SPRAGUE. Yes, sir.

Commissioner SWEET. Have you not invented other things besides the motor?

Mr. SPRAGUE. Well, I started, after resigning from the naval service, in the development of the stationary motor for all sorts of purposes, and then I took up the development of the trolley; and the principles which were laid down at Richmond have become universal—they are accepted everywhere—the motor mounting and control is now universal. Then I took up what is called the multiple-

unit system of operation of trains, but meanwhile I had developed the electric elevator, as distinguished from the hydraulic, and now I have spent the past five or six years on the development of train control for safe operation.

I want to say this, that there were none of those enterprises but what the cost of development has run into hundreds of thousands of dollars. It is a long story before one gets a return.

Commissioner SWEET. A man who has had your long and interesting experience, I imagine, would hardly be willing to say that anything that now exists in the world is perfect?

Mr. SPRAGUE. I have not found anything yet.

Commissioner SWEET. You would have no hesitation in admitting or stating that there are likely to be improvements?

Mr. SPRAGUE. That is absolutely certain.

Commissioner SWEET. I think, in answer to a question that was asked you, you have stated that you thought the generation of electricity and its conversion into power for the purpose of moving electric cars and other purposes had reached a very high point of efficiency and was not likely to be superseded by any other system.

Mr. SPRAGUE. That is my belief; yes.

Commissioner SWEET. But you would not go so far as to say that improvements of various kinds—minor, perhaps, many of them—are not likely to be made in the future; would you?

Mr. SPRAGUE. Oh, no. Of course there will be improvements just the same as there are improvements in that fan there, for example, which is on your desk. There is an example of a pretty reliable piece of apparatus. You stick it away anywhere, anybody turns on the current and it runs along hour after hour without any attention whatever. Well, it would be foolish to say that its efficiency could not be improved a little.

Commissioner SWEET. Certainly.

Mr. SPRAGUE. And that it could not be made a little more noiseless, that perhaps it could not be built possibly a little cheaper. But those are more in the nature of refinements; they are not radical, they are not revolutionary. This incandescent lamp that I spoke of, which is the basis of the modern incandescent-lighting system, operated to-day as it is, has operated for the last 25 years at 125 volts; it could be operated at 60 or it could be operated at 250, but there happens to be an advantage in the raising and lowering of tension which makes that about the best tension, and also it has become now almost universal. But the lamp itself in its economy has been increased, the amount of power required to get a certain power is half or one-third what it was some years ago.

Commissioner SWEET. That is by the substitution of one kind of a filament for another?

Mr. SPRAGUE. Yes; but with that same improvement has gone a disadvantage. That is, we get more intense light and getting a more intense light we cut down the light so that the net result has not been very much changed.

You take a great generator, a thirty or forty thousand kilowatt machine—it has an efficiency of 97 or 98 per cent, not 50 or 60 or 70 per cent, as the earlier and small machines would have. There is only a couple of per cents more that is left, so that all you can do is to refine it.

Commissioner SWEET. When you built your Richmond road the art was at the beginning, practically?

Mr. SPRAGUE. Oh, yes.

Commissioner SWEET. Now, it was perfectly natural that changes should be made of a very radical character that would practically scrap everything that you had there; and what you see to-day in the absence of any of the equipment that you put in there is what you might naturally expect, is it not?

Mr. SPRAGUE. Yes. For example—

Commissioner SWEET. But if I understand you right, that is not likely in the very nature of things to be repeated?

Mr. SPRAGUE. Oh, no, it would not.

Commissioner SWEET. Yet you do not claim for a minute that considerable of the material that is used in present equipment may fail to come up to either the demands of the public for the best points of economy and be scrapped, do you?

Mr. SPRAGUE. No; I would not claim that that was impossible, of course. For example, a good many equipments are running to-day with generators of perhaps a certain capacity. You may find it necessary to combine this and that road under a common management, like the light and power supply lines, as well as the trolley lines themselves, and expand the operation under one management over a very much enlarged territory, and it might easily be that it would pay a company to scrap this or that smaller station and put in a few number of larger stations of very much increased units.

Commissioner SWEET. Yes.

Mr. SPRAGUE. I would not say that was in the nature of ordinary scrapping due to either wearing out on the one hand or failure in its purpose, but because, taking it by and large, they could gain greater economies in the operation of the station, fewer men, for example.

Commissioner SWEET. That is right. Now, Mr. Sprague, is not this whole matter of obsolescence of very minor importance in connection with the problem that we are here to consider?

Mr. SPRAGUE. I think it is almost negligible.

Commissioner SWEET. Yes. Is not the real essence of the thing in the fact that the nickel that was paid at the time you built that railroad in Richmond—because I suppose the fare was then a nickel, was it not?

Mr. SPRAGUE. Yes.

Commissioner SWEET. It was a nickel fare?

Mr. SPRAGUE. Yes.

Commissioner SWEET. Away back in 1887?

Mr. SPRAGUE. Yes.

Commissioner SWEET. And it was an entirely different nickel from the nickel we have to-day, as far as purchasing power is concerned?

Mr. SPRAGUE. Well, it is only about half as good or less.

Commissioner SWEET. Is it not a fact that these railroad companies are paying for everything that they get and everything that they need in the way of equipment and wages and everything in a nickel or in a dollar or on the basis of a dollar that is worth 100 cents and that their income is coming on the basis of a dollar that is worth about 50 cents?

Mr. SPRAGUE. Yes.

Commissioner SWEET. And can any institution live under those circumstances?

Mr. SPRAGUE. I think that is a very modest way to put it; and no institution can live under those conditions.

Commissioner SWEET. The only solution of the problem then is to find some way of bringing up the income of these street-railroad companies to a proper relation or proportion to what their expenses are: is not that the whole question?

Mr. SPRAGUE. Yes; because you can not compel people to ride; and there is the danger in handling it.

Commissioner SWEET. Certainly.

Mr. SPRAGUE. There are people who ride because they have got the habit, or they ride because it is just about a little more advantageous to ride a certain distance than it is to walk. If it cost them any material amount more they would walk. The fellow that has a longer distance, however, will still ride: and that is why I personally feel that a more equitable system of charging is a zone system, although it is rather difficult to apply, but one which in some respects might be more flexible. But there has to be an increased return somehow. People to-day are not paying the same nominal nickel but really only about half value for a great deal better service and a great deal longer ride. In other words, the ratio of what they have got and what they are paying for has been increased enormously.

Commissioner SWEET. The same thing could be accomplished if it were possible to reduce expenses in some way so as to make the income of these companies correspond properly with the outgo, but as an inventor having full knowledge of electrical equipment and of the general expenses of these companies, is it your judgment that it is possible to reduce expenses to meet the present emergency?

Mr. SPRAGUE. It is not.

Commissioner SWEET. Or anywhere near it?

Mr. SPRAGUE. No, sir.

(Witness excused.)

The CHAIRMAN. We will adjourn now to meet at 10 o'clock to-morrow morning.

(Whereupon, at 10.05 p. m. an adjournment was taken to Thursday, July 24, 1919, at 10 a. m.)

WASHINGTON, D. C., *July 24, 1919—10 a. m.*

Present: Parties as before.

Mr. WARREN. Mr. Mortimer, will you take the stand, please?

STATEMENT OF MR. JAMES D. MORTIMER.

Mr. WARREN. Mr. Mortimer, you are the president of the North American Co.?

Mr. MORTIMER. I am.

Mr. WARREN. Which is interested in a good many street railways?

Mr. MORTIMER. It is.

Mr. WARREN. You are also president of the Milwaukee Electric Railway & Lighting Co.?

Mr. MORTIMER. I am.

Mr. WARREN. Of Milwaukee.

Mr. MORTIMER. Yes, sir.

Mr. WARREN. How many street railways is the North American Co. interested in?

Mr. MORTIMER. Three; the Milwaukee Railway & Lighting Co.; a railway utility in the southern part of Wisconsin, forming a part of the Wisconsin Gas & Electric Co.; and we have a vanishing interest in the United Railways Co. of St. Louis, being a common shareholder.

Mr. WARREN. There is commission regulation in Wisconsin; is there not, Mr. Mortimer?

Mr. MORTIMER. There has been commission regulation in Wisconsin since 1905.

Mr. WARREN. Your company has been subject to that regulation ever since it was adopted?

Mr. MORTIMER. We have been the experimental ground for most of the regulation for street railways in Wisconsin, and also the experimental ground for the most of the regulation for street railways in the United States.

Mr. WARREN. Will you give a brief sketch of the regulation and its effect as it related to your company?

Mr. MORTIMER. Regulation in Wisconsin first was attempted in 1896 by the common council of the city of Milwaukee, acting under its police powers. It sought, following a consolidation of seven detached lines making up the unified system, to substitute a commutation fare of 6 tickets for 25 cents in lieu of the 5-cent cash fare, with universal transfers.

That case went to the Federal district court on the ground of confiscation, and the common-council resolution was declared to be confiscatory. No appeal was ever taken by the municipality. It was one of the early cases of regulation where a Federal court held that street-railway utilities were entitled to a reasonable return, and any order of a governmental body reducing such return below current ordinary interest rates was confiscatory, and therefore in violation of the Constitution.

In 1905, the legislature passed the railroad-commission law. The railroad commission law was primarily designed to take care of steam railroads and telegraph companies. It was not entirely clear from a reading of the statute that it covered street railways.

Despite that fact, a case was brought by the city of Milwaukee in the following January after the 3-cent fare in Cleveland, to have the railroad commission ordered to discontinue the franchise rates of fare and install a fare of 3 cents.

The railroad commission started a valuation of the physical property—

Mr. WARREN. Of your company?

Mr. MORTIMER. Of the Milwaukee Electric Railway & Lighting Co.

The Milwaukee Electric Railway & Lighting Co. at that time was serving the city fare area. It was closely related to a company that was serving the suburban and interurban area, known as the Milwaukee Light, Heat & Traction Co.; and when, hereafter, I refer to the Milwaukee Electric Railway & Lighting Co. I refer to

the city company, and when I refer to the Milwaukee Light, Heat & Traction Company, I refer to the interurban company.

Commissioner GADSDEN. Why not refer to them as the city company and the interurban company.

Mr. MORTIMER. I think I can refer to them more conveniently as the city company and the interurban company.

Commissioner GADSDEN. Yes.

Mr. MORTIMER. These two properties were operated jointly, owned by the same interests, and had the same operating organizations. The physical property of one began where the other ended, and all the physical property was used interchangeably.

The company relied upon the rate of fare prescribed in the franchise, and did not take at all seriously the attempt to reduce the rate of fare, and, accordingly, paid comparatively little attention to the valuation of the physical property. In fact, there was some effort to show how cheaply material was purchased, the idea being to keep the valuation down because of its possible influence upon taxation.

The 3-cent-fare case was reinstituted again in 1907, following the enactment of an amendment to the railroad-commission law, which clearly put the street railways under the jurisdiction of the railroad commission. The case was finally decided by the railroad commission in August, 1912. The details of the testimony—the conclusions, the analyses, and related matters—are clearly set forth in Mr. Doolittle's book on the cost of passenger transportation service. That book I am going to offer to the commission for the detailed information. The book carries data down to 1912. The commission's order required that the company discontinue the sale of 25 tickets for \$1, and substitute in lieu thereof the sale of 13 tickets for 50 cents, retaining a 5-cent cash fare and 6 tickets for 25 cents.

It also ordered the extension of the single-fare limits—the city fare limits, the 5-cent limits—out a distance outward from the center of a mile to a mile and a half, thereby increasing the length of the ride. Nineteen hundred and thirteen was a year of comparatively poor business. In 1914, the jitney competition sprang up. Operating expenses per car-mile increased, and operating revenues per car-mile decreased. The same conditions were maintained during the year 1915, and in November of the last-mentioned year the two companies filed a joint petition with the railroad commission, asking for an adjustment in fares. We had, in the interval, procured the installation of the modified zone system, whereby we abandoned the 5-cent zone on the suburban lines, and substituted in lieu thereof increment zones of 2 cents per mile.

The commission, after this hearing, putting in these cash zones of 2 cents per mile, ordered the sale of commutation zone tickets of 36 for 50 cents, in response to considerable complaint and political pressure.

Prior to the time of our filing the November, 1915, petition, a revaluation of the physical property had been started.

Mr. WARREN. There had already been one?

Mr. MORTIMER. There had already been one valuation. The company was dissatisfied with that valuation, because it was evident from their checking of it that a good deal of property had not been disclosed. There were substantial quantities of property that had been treated as nonoperating that were either at the time actually

operating or had since been converted into actually operating utility property, and, moreover, there had been an increase in the quantity of the physical property by approximately 50 per cent. The revaluation of the physical property disclosed an increase of something over \$2,000,000, when contrasted with the physical property as of the same date of the prior valuation.

The problem of making rates in our system is rather complicated because of the fact that it is a joint railway, electric, and steam-heating corporation; in other words, we have three utilities, much of certain classes of the property of which is common to all three utilities.

The CHAIRMAN. Do they have a separate system of accounting for each company?

Mr. MORTIMER. They have a separate system of accounting for capital expenditures, operating revenues, and operating expenses; but when a piece of land is purchased for a power situation or for an office building, the value of that real estate must necessarily be apportioned between the three utilities in accordance with the use by each class of the business growing much more rapidly than another class.

For example, if the light and power business is increasing three times as fast as the railroad business both in capital expenditures and in revenues, there will be a changing basis of apportionment of the common property.

The railroad commission in its decision of August, 1912, estimated that the rate of depreciation—that is, the allowance which should be made to cover the cost of replacements over and above the expenditures for ordinary maintenance—should be 4.46 per cent per annum. The city attorney had previously computed it at 2.394632 per cent.

Mr. WARREN. A sort of squaring of the circle?

Mr. MORTIMER. In our petition of November, 1915, we used the railroad commission's valuation of the railway's property as of August, 1912, and made it up to date by our capital expenditures, using the railroad commission's estimate of the rate of accruing depreciation, and thereby showed that we were earning between 4 and 5 per cent per annum upon the appraised value of the utility capital.

No action was had upon the petition of November, 1915, for a long time.

In the latter part of 1916, the company filed an emergency petition with the railroad commission, asking for emergency relief, because of the necessity of making large increases in wages to attract the labor necessary to operate the railway system and also to permit it to make an 8-hour day effective throughout the railway department.

That petition was denied on the ground that the emergency was not such as to justify the granting of emergency relief as contemplated within the statute, and the commission at that time indicated that even a threatened receivership would not be sufficient to constitute an emergency within the meaning of the statute. The officers of the company pushed for a determination on the petition of November, 1915.

The valuation had dragged rather slowly—the revaluation had dragged slowly—and was finally completed in August, 1917.

The cost of living began to very rapidly increase, and it became necessary for the company to consider making substantial increases in wages; first, to keep the men on the cars; and second, to keep the service going—that is, to keep a sufficient number of trainmen to operate the cars.

The matter finally came to a head in a demand made in the latter part of April, 1918, by the employees for an increase of 15 cents an hour and for an 8-hour day. The company told the men that they had no dispute with them on the matter of wages, but since wages were so intimately related to fares that the proper place to make the application was at the office of the railroad commission in Madison. The committee went there and received very attentive treatment and were assured that by the 1st of May there would be an order granting an increase in fares.

Based upon the assurance given by all three members of the railroad commission to the committee, I entered into a contract whereby the wages of the men were increased 10 cents per hour, or approximately \$1 per day. A strike had been threatened. The cessation of service had been threatened, and this assured the continuity of service for the time being. The Railroad Commission of Wisconsin told the committee that an order would be forthcoming from the 15th of May, and not later than the 19th. The 15th came by, and there was no order, and the 19th came by and there was no order; and the employees naturally wanted to know when the case was going to be determined. I found it necessary to tell the committee that if there was no order forthcoming by the time the pay roll for the last half of the month of May, 1918, was made up, we would be unable to pay the increase in wages for the last half of the month of May, because the increase had been predicated upon the granting of relief by the railroad commission.

The employees communicated these facts to the railroad commission, and on the 1st of June, before all the time slips had been assembled, the railroad commission handed down an order, ordering the company to discontinue the sale of 25 tickets for a dollar and 6 for 25 cents, and to substitute in lieu thereof a 5-cent cash fare; and that is the fare that we are collecting to-day.

In August, 1918—

The CHAIRMAN. You say there was an understanding between you, the railroad commission and the employees, that an order would be made increasing rates?

Mr. MORTIMER. The understanding—

The CHAIRMAN. Now, what were they going to increase the rates to?

Mr. MORTIMER. There was an understanding between the commission and the men, and then between the men and the company, that there would be an adjustment of rates. There was no understanding as to the magnitude of that adjustment, so far as I know. At least, the company had no knowledge of it.

The CHAIRMAN. It was one of those open covenants openly arrived at which did not materialize?

Mr. MORTIMER. Well, we got an increase. So that, so far as that part of it is concerned, the commission carried out its word technically with the employees.

The results of the increase in rates were not sufficient to compensate for the increase in expenses and produce a reasonable return upon any measure of utility capital. So the company, in August, 1918, filed an additional petition asking the commission to investigate the matter. The commission had retained jurisdiction, as they usually do in cases of that kind, so that the results could be watched, and we were filing frequent statements with the commission showing the results of the order and the tendencies of operating expenses. The commission appeared to be very much peeved because we had filed an additional petition so shortly after we had been granted an increase to 5 cents from the 1st of June. No time was set for the hearing until the latter part of October. The hearings were necessarily of relatively short duration, because all the essential facts up to April, 1918, had been presented to the commission, and it was only necessary to supplement them by more recent data of the expenses and actual expenditures. The hearings were supposed to be closed on the 27th of November, 1918.

The employees had begun to push for further increases in wages. Their wages, following the May 1 adjustment, while embracing a very large increase in the hourly rate, were not then comparable with the awards that were being made by the National War Labor Board, the first of which were made along in the early part of July, 1918.

When the employees asked for further adjustments in order to bring their scales into line with what they called the Government wage, we told the employees that it was a question of revenues, and that it was up to them to get an increase in revenues, and that we would cooperate to whatever extent we could, that we had already had this petition filed.

The employees employed an accountant to make an examination of our books of account to ascertain whether or not we were telling them the facts, and the accountants reported to them that the facts were substantially in accordance with what the company had stated. Based upon this examination, the employees again presented themselves to the railroad commission and asked if the information contained in the Hagenah and Erickson report was not correct. The commission replied that, so far as their cursory examination indicated, the report was substantially correct and did not differ materially from their own figures.

Then the situation began to become more active. The company indicated its helplessness. It showed that the earnings on the railway property were only 3 per cent per annum on the appraised value of the physical property, stripped of all considerations of stocks and bonds and bond discounts, and with only very modest allowances for overhead, engineering overhead.

The employees made a number of trips to the railroad commission, and they finally went to the governor of the State. It thus became more or less of a political issue. Then the employees finally decided that they would have to cease service on the 1st of January, 1918, after serving notice upon the public.

Commissioner MEEKER. 1918?

MR. MORTIMER. 1919, the end of the year 1918. And service was ceased for one day.

The service was resumed on the night of January 1, upon the agreement of the company to pay to the employees an increase in wages of approximately $4\frac{1}{2}$ cents an hour, predicated upon the organization's using its influence to get out of the railroad commission a prompt decision upon the company's application of August, 1918.

The fact that the company was not fighting with the men, that they appeared to be on friendly terms, had caused the city attorney of Milwaukee to claim that a conspiracy existed and had resulted in the first attempt on the part of the railroad commission to investigate the cause of the strike, but later there was an appointment of a legislative investigating committee made up of members from both houses.

That legislative investigating committee held hearings during a number of weeks, took testimony of over 1,800 pages, and, finally, about the middle of April, it handed down its findings.

Now, the findings are of interest; and I beg the privilege of the commission to read certain extracts.

Commissioner MEEKER. Will not the whole report, if it is contained in that brief pamphlet, be of interest to the commission?

Mr. MORTIMER. I intend to file it.

Commissioner MEEKER. Yes.

Mr. MORTIMER. There are certain matters connected with it that I want to develop.

The CHAIRMAN. Proceed.

Mr. MORTIMER. I believe it was said at some prior hearing that the street-railway companies never presented their facts to the public, and it was also said that the street-railway companies would have less trouble if they fought back; and I want to disclose some of our advertisements.

This is a part of the findings of the legislative investigating committee:

The railroad commission in the negotiations with the men always took the position that the company should first raise the wages of the men and that the commission would consider such raise as an operating expense in its decision. It was on this basis that the raise of May 1 was granted, but it was claimed on the part of the company that the railroad commission did not at that time give sufficient consideration to the increase in wage cost. The company, therefore, took the position that no further raise should be made until the commission first acted on the proposed increased wage and provided revenues therefor. There is a sharp difference of opinion between the company and the railroad commission as to the power and duties of the railroad commission with reference to wages. The company contends that the commission has the power and duty to pass on the question of wages as a factor in the administration of the railroad commission law, and that, where the increased wage is determined upon by the commission, it is its duty, as a condition precedent to the payment thereof, to furnish in revenues lawfully required for that purpose. The commission contends that it has no power and no duties in regard to wages, except to consider them when paid as an operating expense. It is the opinion of the committee that the railroad commission takes too narrow construction of the law and that it has the power to consider wages the same as it has the power to consider any other factor in ordering service, and if this power is not sufficiently specific in the statutes as now provided, the commission should be given that power. In other words, the commission should have full and comprehensive administrative jurisdiction to keep the wheels going and prevent cessation of service.

The company expressed its dissatisfaction with the delay of the commission in its decision on the case pending from November, 1915, to June, 1918, and seemed determined not again to take any chances on a delay of that character by advancing wages and waiting for a subsequent recognition of the outlay. It not only sought to bring pressure on the commission to decide the pending

application of August, 1918, by encouraging the men to bring pressure upon the commission to act, but it sought to influence public sentiment against the commission and in its favor by various means. This was partly done through publications which it issued from the Public Service Building and had distributed to the patrons of the road by its employees, and it was done by paid advertisements in the public press. On December 28 the following paid advertisement was run in a Milwaukee newspaper:

"The Electric Co. has no dispute with its employees over wages, hours, or working conditions. Our relations have been and are most friendly. The company deeply appreciates, and we believe the community does, the fact that Milwaukee Street Railway employees have shown a high degree of loyalty and forbearance in keeping the cars moving during the war year notwithstanding the wage was less than that established by the National War Labor Board for cities of Milwaukee's class. * * *

"The railroad commission well knows and our men, through their own accountants' investigation, learned that the street-railway systems of these companies entered the year 1918 earning much less than the reasonable return assured them by State law. * * * It is in view of the foregoing facts that our men demanded of the railroad commission par revenue increases which as they know are the only means of giving them adequate wages. They share the company's belief that the people of Milwaukee are able and willing to pay the fair going price for the services they render and that the commission will fearlessly execute the plain intent of the State utility regulation."

And on December 29 the following paid advertisement was run in a Milwaukee newspaper:

"Punishing Milwaukee. * * * Wisconsin Railroad Commission's refusal to maintain the State's good faith by executing the plain intent of the utility-regulation law robs street-railway employees and investors and injures the whole community.

"Milwaukee and surrounding cities are threatened with a strike's stopping street railway and electric service on January 1, because the railroad commission for over two years has failed and refused to allow the Milwaukee Electric Railway & Light Co. and the Milwaukee Light, Heat & Traction Co. earnings enough to pay living wages. * * * It is because our men through their own accountants' investigation know the above facts that they address their demands for higher wages primarily to the railroad commission rather than to the companies.

"As a direct and unavoidable result of this gross violation of the State's good faith, the employees of these utilities have been underpaid; the owners will be robbed of a large share of return on the investment which they should have received for the year 1918; the companies are being compelled to pay a higher price for new capital urgently needed to finance plant growth, and service betterments desired by the public could not be provided."

The CHAIRMAN. Who paid for those advertisements?

Mr. MORTIMER. We paid for them.

Commissioner SWEET. The company did?

Mr. MORTIMER. The company did.

Commissioner GADSDEN. It was put out over the name of the company?

Mr. MORTIMER. Oh, yes; over the name of the company, of the Milwaukee Railway & Electric Lighting Co.

"These companies and their employees do not for a minute doubt the good faith of the people of Wisconsin nor of the State of Wisconsin. We feel sure that when the facts are known public opinion will compel action by the governor and the railroad commission to maintain the State's good faith and do justice to this community and to the employees of and investors in Milwaukee's electric service.

"For more than two years past these companies have been quietly pleading with the railroad commission to do its plain duty under the State law. The commission, in possession of all the facts, has failed and refused to do its duty.

"As a result our employees are now prepared to tie up the system unless the companies give them wage increases, which they need and should get, but which can not be given them without robbing our creditors.

"There is just one way out. That is for the railroad commission to fix fares that will let the companies pay the wages demanded and pay their investors a fair yearly return, which the State assured them when it assumed control of their rates, services, finances, and accounting."

Then, following the discussion of the causes and the fact that the causes had not been removed, the legislative investigating committee says:

As there is no change of venue from the commission, and the company must continue to submit its matters of service and regulation to the commission, this, in itself, presents a serious question. Provisions are made in the court practice for a change of venue for prejudice of the judge, but there is no such provision in the case of the commission.

The beginning of the trouble probably came from lack of prompt decision on the part of the commission. That condition has existed for a long time. Decisions have been delayed seemingly for unreasonable periods. There can be little justification in a hearing pending from November, 1915, to June, 1918. But other decisions have been delayed much longer.

The commission has the power and jurisdiction to require books to be kept by the companies in the manner and form required by it and to require reports from the companies in the manner and form and at the time demanded by it. By a careful checking of these reports, as filed, and prompt correction of errors, there would seem to be no reason why the commission should not be fully advised of the financial conditions of the companies at all times. Such a system in itself furnishes a valuable check on the management and service of such companies.

The commission has frequently held, and so have the courts, that a rate from 7 or 8 per cent on invested capital is reasonable. In a decision by the circuit court of Dane County, Judge Stevens presiding, the court held that the company had an "income on the city railway property in 1912 of 5.61 per cent; in 1913, 3.48 per cent; in 1914, 5.49 per cent," and he concludes "that the average being $5\frac{1}{2}$ per cent or thereabouts"—under $5\frac{1}{2}$ per cent—"any order which reduces returns on investment to so low a cost as $5\frac{1}{2}$ per cent is unreasonable." In that decision Judge Stevens used the commission valuation. This rate is susceptible of fluctuation as the interest on money fluctuates, and the rate of return need not be uniform throughout the year or even over a term of years. If the general level of rate upon investments is in conformity to the lawful rate, the rates may vary considerably from time to time. By a full accounting system, the commission should have no serious difficulty in determining the general level of returns on invested capital from month to month and to maintain that level by adjustment of rates and service. Hasty and ill-considered action should never be required, but reasonably prompt decisions are necessary to any system for administering justice.

It would be well to guard against unwarranted delay in the future in deciding cases by the commission by providing in the law that whenever any party deems its case to be unwarrantably delayed, it may obtain in the circuit court for Dane County, an order to show cause against the commission why the commission should not be ordered to render a decision within a reasonable time to be fixed by the court.

The committee finds that the cessation of service on the street-car lines in the city of Milwaukee on the 1st day of January, 1919, was the result of the company's failure to meet the just wage demands of the trainmen on the one hand, and the failure of the railroad commission to expeditiously function, on the other hand.

The commission is subject to reasonable criticisms through the press or otherwise, but in no case should it be coerced into a decision by a party litigant.

Mr. WARREN. There is no time limit in your statute, the Wisconsin statute, on the decisions of the commission?

Mr. MORTIMER. No; there is no time limit on the decisions of the commission.

Mr. WARREN. Do your tariffs have to be approved by the commission before they become effective, or does the commission suspend them?

Mr. MORTIMER. In practically all cases, under both the railroad commission law and the so-called public-utility law, increases are procured by filing petitions, rather than by the filing of tariffs. In other words, the Wisconsin law differs materially in that respect from the laws of many other States by permitting the filing of the tariffs and rate schedules, with the authority of the commission to suspend for limited periods of time.

Mr. WARREN. So that your increase can not take effect at all until affirmative action by the commission?

Mr. MORTIMER. Our increases can not take effect until there is affirmative action by the commission. We can have no increase in rates until there has been affirmative action by the commission.

Commissioner SWEET. After this legislative committee made its report, were any bills introduced into the State legislature seeking to amend the law, so as to compel the commission to take prompt action?

Mr. MORTIMER. There were a number of bills introduced in the legislature at that time following the filing of this report relating to the abolition of the commission.

Commissioner SWEET. Still more drastic than compelling them to act promptly?

Mr. MORTIMER. Yes.

Commissioner SWEET. But was there ever any legislation enacted or any laws passed by the State legislature on the subject?

Mr. MORTIMER. There was no action taken on this report. There has been some legislation not directly connected with this report, but having a bearing on it, that was enacted, and that legislation I would like to refer to in a separate discussion of recent legislation.

The CHAIRMAN. What action was taken on the bills introduced to abolish the commission?

Mr. MORTIMER. They died their natural and usual death.

The CHAIRMAN. Was there any real support for those bills?

Mr. MORTIMER. It was isolated and not organized.

The CHAIRMAN. Were the utilities for or against those bills?

Mr. MORTIMER. Some of the utilities openly opposed them, and other companies took the position that it did not make any difference, that it could not be any worse if they had no commission.

Mr. WARREN. Are you a believer or not in the theory of commission regulation, State regulation through commissions?

Mr. MORTIMER. I am a believer in the theory of regulation by commission, and believe it is the most satisfactory way of taking care of the many complicated relationships that exist between the public-utility and the community served, the State, and the employees.

Commissioner SWEET. But you think there should be coupled with it a requirement for prompt action?

Mr. MORTIMER. Yes. I would even go further than that and suggest that the laws be materially changed, so that there should be no shifting bases for commission regulation. That is one of the hazards of commission regulation.

Commissioner SWEET. What do you mean by "shifting bases?"

Mr. MORTIMER. A commission may shift its basis on three principal things: First, the item of valuation. One commission may have one viewpoint as to what elements of value are to be considered, and another commission, a subsequent commission, appointed under

the same law, may have an entirely different opinion. It is important that that hazard of shifting valuation be eliminated; first, so that the utility may know where it stands with respect to earning; and second, so that the investors may be assured when capital is put into the property, when the property is sold or subsequently regulated for rate-making purposes, it will be considered at the par value of its original investment.

Commissioner SWEET. Well, you did not have two commissions, did you? There was only one State commission?

Mr. MORTIMER. Yes; there was only one State commission, but the personnel—

Commissioner SWEET. Oh, yes.

Mr. MORTIMER. There had been a rather rapid turnover in the commission?

Commissioner SWEET. I see.

Mr. MORTIMER. In the period between the August, 1912, decision, and the decision of June, 1918.

Commissioner SWEET. So that the commission at different times with different personnel might adopt a different plan of valuation?

Mr. MORTIMER. Yes. Then the second element is the amount to be allowed to insure future replacements.

The commission that had the job in August, 1912, when it ordered a discontinuance of 25 tickets for a dollar and 13 tickets for 50 cents, used a depreciation allowance of 4.46 per cent.

The commission, in June, 1918, with a different personnel, used an allowance of 2.82 per cent, a difference of $1\frac{1}{2}$ per cent. One and a half per cent on the valuation of \$20,000,000 runs into a substantial sum each year.

Commissioner SWEET. Oh, yes. How large a commission do you have in Wisconsin?

Mr. MORTIMER. There are three members—the chairman and two other commissioners.

Commissioner SWEET. Appointed by the governor?

Mr. MORTIMER. Appointed by the governor and confirmed by the senate. Each gets paid \$5,000 a year.

Commissioner MEEKER. What was the third point that you just started to elucidate?

Mr. MORTIMER. The third point is some definite determination with respect to permanency of return.

The commission, in its decision of August, 1912, held that the railway utility was entitled to a reasonable return upon the fair measure of the utility capital, that that reasonable return was $7\frac{1}{2}$ per cent per annum, and, based upon that assurance, I authorized the expenditure in our Wisconsin properties during the succeeding years of, roughly, \$15,000,000. I feel quite sure that we have never earned any $7\frac{1}{2}$ per cent return in the railway business during the intervening period of time, and the railroad commission, in its decision of April 4, 1919, in response to our petition of August, 1918, held that the commission had never said that the companies were to get a reasonable return during good times and bad times.

Now, if a reasonable return limited to $7\frac{1}{2}$ per cent means anything, it means that you are going to get it both in good times and bad times. Otherwise, there is no justification for limiting the return to a figure as low as $7\frac{1}{2}$ per cent. The theory of the

computation of $7\frac{1}{2}$ per cent is that there shall be an allowance for interest of approximately 6 per cent, plus a profit on that for the compensation of the enterprise of $1\frac{1}{2}$ per cent.

Commissioner MEEKER. Do you mind suggesting how you think these shifting things can be avoided?

Mr. MORTIMER. Yes; I would like to do that, Mr. Commissioner, and I want to discuss that in touching on the relationship between State regulation and so-called cost-of-service franchises.

Mr. WARREN. Do you want first to describe the recent legislation?

Mr. MORTIMER. There is one intervening thing, because I want to lead up to the April 4, 1919, decision.

During the time that the legislative investigating committee was holding sessions, just shortly prior to the time that it arrived at its decision and filed its report—

Mr. WARREN. Was that report unanimous?

Mr. MORTIMER. That was the unanimous report. There was a supplementary report that dealt more with the labor aspects of the situation. That supplementary report was signed by, I think, three of the members, and it attempted to show the great hazard that existed for the public and for the employees where there existed a labor organization such as ours.

Commissioner GADSDEN. Was it Amalgamated?

Mr. MORTIMER. No.

Mr. WARREN. It is an organization of your own men?

Mr. MORTIMER. Well, there is an organization that has exclusive labor contracts with several of our companies, with all of our companies, the Milwaukee Electric Railway & Lighting Co., the Wisconsin Gas & Electric Co., the North Milwaukee Light & Power Co., and the Wells Power Co.

The chairman of the commission during this time was up for reappointment. There was considerable opposition to his reappointment from the Social Democrat members in the legislature, in the Senate. We also ascertained subsequently that there was a good deal of pressure brought to bear upon the commission not to permit any advance in fares while the legislature was in session.

So the railroad commission, in its decision of April 4, 1919, in response to our petition of August, 1918, estimated the increase in revenues during the year 1919, which they thought the company ought to enjoy. They made certain allowances for maintenance of way and structures and for the maintenance of equipment, and estimated what the net operating revenues would be applicable to the payment of a return upon the utility capital.

In this process of making these estimates, it very largely reduced the allowances which we had incurred during the last two years—18 months, rather—for the maintenance of way and structures, and for the maintenance of equipment, and substituted its own allowances. They also, in the process of the computation allowances, dropped \$100,000 of our expenditures for the maintenance of way and structures, and then forgot to pick it up again.

So that on its own computations, we were \$100,000 short of earning this reasonable return. They estimated that we would earn during the year 1919, 7.5 per cent return.

Here are the results:

For the Milwaukee city and suburban-railway utility, comprising about 220 miles of track and involving a capital investment in the

railway business alone, exclusive of power-plant facilities, of \$15,910,000, the rate of return earned during the month of May was 3.92 per cent per annum, or about 0.25 of 1 per cent per month.

Mr. WARREN. May of what year, Mr. Mortimer?

Mr. MORTIMER. May, 1919. I want to correct that. That is in the single fare area alone, comprising 167 miles of track.

Mr. WARREN. What was that \$15,000,000? Was that the result of the valuation made by the commission?

Mr. MORTIMER. This determination of \$15,900,000 is the appraisal of the physical property by the railroad commission as of January 1, 1914, to which have been added the capital expenditures as shown by the books and as audited by the railway-commission accounting staff.

The figures that are—I was in error. The return during the month of May for the single fare area was 0.45 of 1 per cent per month, a net operating revenue of \$71,557 out of a gross revenue of \$533,045. There was a loss shown on the suburban system, not including the interurban, of 0.6 of 1 per cent, and the combined return for the two systems for the month of May was 0.36 of 1 per cent. For the five months ended May, 1919, we earned 1.92 per cent under the 5-cent fare in the single-fare area, lost 3.39 per cent on the suburban system, and on the two systems taken together showed a net of 1.5 per cent for five months.

Commissioner MEEKER. Will you allow me to suggest that these percentages that you have given should be in equivalent percentages per annum, so that no confusion may arise? I do not ask that you do that now, but will you have that in the record?

Mr. MORTIMER. Yes. I now have the figures on the annual basis. For twelve months ended May, 1919, the Milwaukee single fare area shows a return of 3.92 per cent. That is a cumulative percentage for 12 months and is, of course, at that rate per annum.

The suburban system showed a loss of 6.27 per cent upon a utility capital of \$1,353,000, and upon the combined system a return of 3.12 per cent upon a utility capital invested exclusively in railway facilities of \$17,264,751.

Commissioner MEEKER. You said \$17,000,000 now and over \$15,000,000 a moment ago.

Mr. MORTIMER. Yes; the \$15,910,909 relates to the capital in the single-fare area.

Commissioner SWEET. The city property?

Mr. MORTIMER. Yes; the city property.

Now, we are required to file these statements monthly with the railroad commission, showing these analyses, and we also hand them to the press, so that the public who are interested will be informed. We also filed with the commission, for the information of the commission, a comparison between our actual results and the commission's estimates.

For the five months of the calendar year, the commission underestimated the operating revenues by \$18,084. It underestimated operating expenses by \$297,793, or something above 12 per cent—

Commissioner MEEKER. Do you still have faith in the commission principle of regulation?

Mr. MORTIMER. If they would let me fix the law, I would have faith in it.

Commissioner SWEET. You would not fix the commission?

Mr. MORTIMER. Well, the commission thinks we did. During the five months, according to the commission's computation, we should have earned an actual return of 3.11 per cent—actual for the five months, cumulative for five months—and we have earned 1.5 per cent, as previously indicated, upon a utility capital of \$17,335,134. That is our most recent experience with the regulation by the commission.

The statements thus referred to by Mr. Mortimer are as follows:

Utility income accounts of the Milwaukee Electric Railway & Light Co. and Milwaukee City & Suburban Railway utilities.

FIVE MONTHS 1919 ACTUAL COMPARED WITH ESTIMATE IN WISCONSIN RAILROAD COMMISSION ORDER OF APR. 4.

	Five months operation based on Wisconsin Railroad Commission order of Apr. 4, 1919.	Utility income account for five months ended May 31, 1919.	Differences.
Operating revenues.....	\$2,698,442.85	\$2,716,526.92	\$18,084.07
Passenger revenues.....		2,695,846.12	.....
Other revenues.....		20,680.80	.....
Operating expenses.....	2,158,580.30	2,456,373.39	297,793.09
Way and structures.....	124,055.10	189,486.71	65,431.61
Equipment.....	182,271.75	295,431.07	113,159.32
Power.....	382,777.05	377,761.41	5,015.64
Traffic and transportation.....	1,014,708.00	1,046,860.58	32,152.58
General and undistributed.....	164,399.65	238,157.37	73,757.72
Taxes.....	106,179.50	112,333.20	6,153.70
Depreciation.....	184,189.25	197,343.05	13,153.80
Net operating revenue.....	539,862.55	260,153.53	279,709.02
Per cent return (five months).....	3.11	1.50	.....
Cost of reproduction.....	¹ \$16,812,003.00	² \$16,795,134.00	.....
Materials and supplies.....	542,500.00	540,000.00	.....
Total utility capital.....	17,354,503.00	17,335,134.00	.....

¹ Jan. 1, 1919.

² Average.

Utility income accounts of the Milwaukee Electric Railway & Light Co. and Milwaukee City & Suburban Railway utilities.—Continued.

TWELVE MONTHS ENDED MAY 31, 1919.

	Milwaukee City Railway (single- fare area).	Milwaukee Su- burban Rail- way.	Milwaukee City and Suburban system.
Operating revenues.....	\$3,871,354.95	\$298,057.86	\$6,169,412.81
Passenger revenues.....	5,823,505.38	286,967.50	6,110,472.88
Other revenues.....	47,849.57	11,090.36	58,939.93
Operating expenses.....	5,217,022.70	383,024.80	5,630,047.50
Way and structures.....	399,682.43	65,543.25	465,225.68
Equipment.....	622,677.37	44,586.13	667,263.50
Power.....	892,084.13	45,852.50	937,936.63
Traffic and transportation.....	2,213,011.68	183,580.80	2,346,592.48
General and undistributed.....	475,358.46	38,345.79	511,704.25
Taxes.....	211,620.98	18,065.96	229,686.94
Depreciation.....	434,587.65	37,050.37	471,638.02
Net operating revenue.....	624,332.25	84,966.94	539,365.31
Per cent return earned, per year.....	3.92	6.27	3.12
Cost of reproduction, average.....	\$15,410,909.00	\$1,313,842.00	\$16,724,751.00
Materials and supplies.....	500,000.00	40,000.00	540,000.00
Total utility capital.....	15,910,909.00	1,353,842.00	17,264,751.00

MONTH OF MAY, 1919.

Operating revenues.....	\$533,045.70	\$26,755.55	\$559,801.25
Passenger revenues.....	529,559.20	26,008.06	555,567.26
Other revenues.....	3,486.50	747.49	4,233.99
Operating expenses.....	461,487.74	31,923.63	496,411.37
Way and structures.....	45,334.08	5,909.82	51,243.90
Equipment.....	55,529.60	5,151.09	60,680.69
Power.....	64,395.02	3,244.88	67,639.90
Traffic and transportation.....	195,600.41	12,387.51	207,987.92
General and undistributed.....	43,389.50	3,346.36	46,735.86
Taxes.....	20,699.53	1,767.11	22,466.64
Depreciation.....	36,559.60	3,116.86	39,676.46
Net operating revenue.....	71,557.96	8,168.08	63,389.88
Per cent return earned, one month.....	.45	.60	.36
Cost of reproduction, first of month.....	\$15,557,275.00	\$1,326,323.00	\$16,883,598.00
Materials and supplies.....	500,000.00	40,000.00	540,000.00
Total utility capital.....	16,057,275.00	1,366,323.00	17,423,598.00

FIVE MONTHS ENDED MAY 31, 1919.

Operating revenues.....	\$2,596,458.43	\$120,068.49	\$2,716,526.92
Passenger revenues.....	2,579,379.00	116,467.12	2,695,846.12
Other revenues.....	17,079.43	3,601.37	20,680.80
Operating expenses.....	2,290,407.70	165,965.69	2,456,373.39
Way and structures.....	163,535.73	25,950.98	189,486.71
Equipment.....	274,430.23	20,000.84	295,431.07
Power.....	359,723.83	18,037.58	377,761.41
Traffic and transportation.....	986,638.47	60,172.11	1,046,810.58
General and undistributed.....	220,691.38	17,465.99	238,157.37
Taxes.....	103,497.65	8,855.55	112,353.20
Depreciation.....	181,840.41	15,502.64	197,343.05
Net operating revenue.....	306,050.73	45,897.20	260,153.53
Per cent return (5 months).....	1.92	3.39	1.50
Cost of reproduction, average.....	\$15,475,779.00	\$1,319,355.00	\$16,795,134.00
Materials and supplies.....	500,000.00	40,000.00	540,000.00
Total utility capital.....	15,975,779.00	1,359,355.00	17,335,134.00

Utility income accounts of the Milwaukee Electric Railway & Light Co. and Milwaukee City & Suburban Railway utilities.—Continued.

MONTH OF MAY, 1919, COMPARED WITH WISCONSIN RAILROAD COMMISSION ORDER OF APR. 4.

	Average month based on Wisconsin Railroad Commission order of Apr. 4, 1919, and Exhibit 4, Apr. 24, 1919.	Utility income account for month of May, 1919.	Differences.
Operating revenues.....	\$539,688.57	\$559,801.25	\$20,112.68
Passenger revenues.....		555,567.26	
Other revenues.....		4,233.99	
Operating expenses.....	431,716.06	496,411.37	64,695.31
Way and structures.....	24,811.02	51,234.90	26,432.88
Equipment.....	96,454.35	60,680.69	24,226.34
Power.....	76,555.41	67,639.90	8,915.51
Traffic and transportation.....	202,941.60	207,987.92	5,046.32
General and undistributed.....	32,879.93	46,715.86	13,835.93
Taxes.....	21,235.90	22,466.64	1,230.74
Depreciation.....	36,837.85	-39,676.46	2,838.61
Net operating revenue.....	107,972.51	63,389.88	44,582.63
Per cent return:			
Per month.....	.62	.36	
Per year.....	7.47	4.37	
Cost of reproduction.....	¹ \$16,812,003.00	² \$16,883,598.00	
Materials and supplies.....	542,500.00	540,000.00	
Total utility capital.....	17,354,503.00	17,423,598.00	

¹ Jan. 1, 1919.

² May 1, 1919.

Utility income accounts of the Milwaukee Electric Railway & Light Co. and Racine City Railway utility.

YEAR ENDED MAY 31, 1919; FIVE MONTHS ENDED MAY 31, 1919; AND MONTH OF MAY 1919.

	Year ended May 31, 1919.	Five months ended May 31, 1919.	Month of May, 1919.
Operating revenues.....	\$427,426.71	\$205,097.13	\$40,935.97
Passenger revenues.....	420,093.65	203,400.21	40,610.72
Other revenues.....	7,333.06	1,696.92	325.25
Operating expenses.....	436,522.13	199,232.28	40,989.43
Way and structures.....	59,409.33	24,372.81	5,582.66
Equipment.....	50,913.37	23,698.44	6,175.32
Power.....	52,016.25	21,344.78	3,890.08
Traffic and transportation.....	191,017.01	90,719.37	17,973.94
General and undistributed.....	44,194.04	21,887.91	3,914.09
Taxes.....	12,770.78	6,245.80	1,249.16
Depreciation.....	26,201.35	10,963.17	2,204.18
Net operating revenue.....	9,695.42	5,864.85	53.46
Per cent return earned.....	1.95	2.61	5.006
Cost of reproduction.....	⁴ \$929,126.00	⁴ \$933,037.00	⁵ \$937,951.00
Materials and supplies.....	30,000.00	30,000.00	30,000.00
Total utility capital.....	959,126.00	963,037.00	967,951.00

¹ 12 months.

² 4 months.

³ 1 month.

⁴ Average.

⁵ May 1, 1919.

Mr. MORTIMER. Now, regulation by the Wisconsin Commission is presumed to embrace the theory of cost of service. The rates of fare are intended to produce sufficient revenues which will provide all current ordinary operating expenses, taxes, and an allowance to insure the future replacement of physical property and a reasonable return, and in our railway utility the commission has held that a 7.5 per cent return is a reasonable return, and that has been adjudicated by the supreme court of the State as fair and proper. At no time during the last two years have we earned any such return.

The year 1916 was our best year, because our expenditures for maintenance were rather low, but even then the commission held that, during 1916, after making adjustments and operating expenses, charging to depreciation reserve the things that this commission thought should be charged, and things that the previous commission thought should be charged to operating expenses, they found that our return never exceeded 7.6 per cent.

Now, our experience with the investment of capital in a railway business is such that I would feel no justification in recommending to investors that they put any additional money into the railway business in Wisconsin. I have frequently told the commission that, and it is pretty well understood that some important change has to take place. The railroad commission has information at all times respecting the utility capital, provided there is no dispute on what the valuation is. By the arrangement for the filing of frequent reports, it is also in a position to watch the tendencies in operating expenses, and it is my opinion that the railroad commission should provide, by order, for a scheme of automatic regulation, so that the net operating revenues would at all times be kept in approximate accordance with the amount determined as the proper annual return by the commission. There may be some technical objection from the standpoint of law that the commission can not enter such an order, but having been apprised of the facts in advance of the last session of the legislature, it was the duty of the commission to have asked for the enactment of such legislation as would have permitted it to have entered such an order.

Now, that brings up the relation of cost of service and contractual relations of municipalities. Commission regulation, as I said before, contemplates cost of service, but it does not work out that way in practice, because, first, of the shifting bases of subsequent commissions, and, second, because of the long period of time required by the commission to act upon applications of utilities for adjustments in rates. There may even be a valuation required, or a revaluation, or accountants may have to have an examination. There can be any number of things developed as reasons for delay if the commission desires to cause delay.

Some of these cost-of-service franchises are defective in two important respects. First, there is no guarantee of the integrity of the capital. The franchises on their faces provide for a diminishing capital account. In other words, they make no adequate provision for the accumulation of reserves against the future replacements of the physical property. They require usually the creation of reserves only in sufficient amount to take care of current replacements, and in the Cleveland so-called cost-of-service franchise, if they encounter an extraordinary replacement, that is carried as a sus-

pendent asset and written off over some agreed period of time. In other words, there has been a number of years in which the Cleveland Electric Railway was financially insolvent and an examination of the balance sheet would have disclosed that. That is touched on in considerable length in Doolittle's book on a study of the Cleveland problem.

The second defect in these cost-of-service franchises lies in the fact that the cost of capital is continually changing, and there is no provision made for the determination at the time of the return that is to be allowed upon additions to capital account.

A proper State utility law would provide something to this effect: That all utilities shall be valued, and the utility capital shall be determined by the commission; that before there are any capital expenditures made, the utility shall apply to the commission for authorization to make the expenditures, and the commission shall, at the same time, fix the return to be allowed upon the capital expenditure. If the commission fixes too low a return, the company can say, "You get the money, Mr. Commissioner." If the commission fixes too high a return, that fact can be corrected in the next application of the utility. Authorizations of capital expenditures shall be cumulative. Authorizations of annual return shall likewise be cumulative, and neither shall be changed, except, in the first case, when property is removed, taken out of service, and abandoned, and then it shall be taken out of capital account, and the amount of annual return that is fixed in this manner shall not be changed except in the event of refinancing, which may cause some subsequent change in the cost of money.

Some such arrangement as that would be fair to both parties. There is only one defect in it and that is the defect of all cost-of-service franchises, and that is you may not be able to collect sufficient revenues to pay the annual return. Operating expenses are rising so rapidly, the demands of labor in all lines of industry are increasing so fast that the electric-railway business is fast going into the position of the British coal mines, and it is not at all sure that we are going to be able to collect sufficient revenues out of the railway business to keep it going. We already have situations, as I will instance, where I am unable to see, with substantial improvements to the railway system and the addition of a large amount of rolling stock for the size of the community, that we could, under any system of fares which we can devise, collect sufficient revenues to pay the operating expenses and pay a reasonable return upon the utility capital.

That situation to which I refer is in the city of Kenosha. The city of Kenosha has had a remarkable experience with its railway business. In 1914, the little street railway down there, embracing about $7\frac{1}{2}$ miles of track, had very severe jitney competition. Distances were very short. We undertook the operation of one-man cars. That produced a very unfavorable public reaction. The town was not well situated for the operation of one-man cars, because there are 25 railroad crossings in our $7\frac{1}{2}$ miles of track, and one of the principal functions of the conductor is to flag the railroad crossings. At least, that was the principal function during the time when the jitneys were so active.

The employees, in May, 1918, operating the cars in Kenosha following the increased wage of 10 cents an hour in Milwaukee, asked for a like increase in wages. Our reply to them was, "We have not the heart to deny it, but we have not the money from the Kenosha Railway." Then they said they would strike, and we told them that that was probably the best thing for them to do under the circumstances and that there were lots of other means of employment in Kenosha that were more remunerative, and all but two men struck. Two old men that could not understand what that meant. And it was necessary to put them on other work, trimming lamps, as we did not want two cars running around the streets. Street-railway service was entirely stopped for a period of five weeks.

While there had been much complaint about single-truck cars and the fact that they would like double-truck cars down there, opinion gradually changed, and on numerous occasions the editorial writers in the local press wished the company would take a car out of the station and let it stand down in Market Square, so that they could see what a street-car looked like.

Things developed that way for five weeks, until the railroad commission ordered the jitneys off the street, and ordered the company to resume service. We resumed service at a 5-cent fare, and with largely increased revenues. We are now operating that short system with the smallest average-sized cars and the largest earnings per car-mile that we have in the State of Wisconsin.

Kenosha is a large manufacturing city—

Mr. WARREN. What is the population?

Mr. MORTIMER. About 37,000.

The housing problem is very serious, and a housing corporation has been formed, but the promoters are naturally unwilling to go ahead with it until they are provided with additional railway facilities.

The Wisconsin Gas & Electric Co. had indicated that it was unable to provide any additional facilities under the revenues and under the type of regulation which it had been experiencing.

Local discussion arose as to the desirability of purchasing the electric railway. We never indicated any opposition to that, because we thought that would be a very good disposition of it. They called me to Kenosha to give them a price on it. I told them, in substance, that we had no objection to their buying it and thought it would be a good thing, and then went on to try to sell it to them, but my efforts at salesmanship were very poor, because the more I talked in favor of the advantages of their buying it, the less they seemed to want it. The result was that they asked if there was not any kind of a proposition that we could make that would permit us to provide additional railway facilities in Kenosha by the investment of private capital.

We then outlined the necessity of a municipal guaranty, and that led to the enactment in the closing days of the legislature of a municipal guaranty law, whereby municipalities can contract with utilities for extensions, for the loaning of municipal capital to provide utility corporations, or for the guaranty of return, and profit sharing.

I had indicated that, as a starter, we would require a guaranty of 6 per cent annual return upon the then investment of approxi-

mately \$500,000, plus the additional investment of \$500,000, roughly; that any returns earned in excess of 6 per cent should be divided 40 per cent to the municipality, 10 per cent to the employees, and 50 per cent to the company; that all restrictions with respect to the rates of fare should be eliminated; that the property should be operated to produce the maximum return by whatever scheme of fares was deemed to be advisable, and that the company should have the right to initiate the fares. The fundamental ideas were accepted. The original bill as drafted contemplated that this law should be applicable to all the cities of the State, which would have included Milwaukee; but the governor limited it to cities of the third class, which included Kenosha and one other of our municipalities, Racine.

Mr. WARREN. What is the division point of population between a city of the third class and a city of the second class?

Mr. MORTIMER. The cities of the third class embrace a population of 10,000 to 40,000, by the last preceding Federal census. The cities of the second class are in excess of that amount and up to 100,000. So that there are only two cities in the State that are not in the third class—I mean larger cities.

Mr. WARREN. That is Milwaukee and what other city?

Mr. MORTIMER. The city of Superior. Racine will pass out of that class in 1920.

The 1900 franchise, under which the Milwaukee Railway & Light Co. operated, contained a provision that the company should extend its tracks over any street that might be designated by resolution of the common council whenever public necessity and convenience required the same. That resulted in the ordering of track extensions over a substantial number of streets whenever they wanted to pave the balance of the street, because the costs of the permanent paving in the track zone are imposed by ordinance upon the street-railway utility. It became necessary to correct that. There may have been other franchises in other municipalities of the State that contained a similar provision. So, in one of the sessions of the legislature somebody got a law on the books that provided that the railroad commission should order extensions whenever public necessity and convenience required the same, provided that the cost of operating such extensions should not prevent the utility from earning a reasonable return upon the utility capital; and since that law went on the books there have not been any street-railway extensions.

In connection with the labor problem there was introduced into the legislature a bill making the railroad commissioner arbiter of wage disputes between the public-utility employees and the employer. Comparatively little progress was made with the bill because there was another measure advocated by the administration known as the conciliation bill. The conciliation bill provides that in the event of dispute between employer and employee on a matter of wages, hours, or working conditions, the matter shall be referred to the board of conciliation appointed by the governor, which shall mediate and make recommendations.

Mr. WARREN. Is that confined to the utilities, or to all industry?

Mr. MORTIMER. The board of conciliation measure, up to the extent that I have described it, applies to all industries. It has no mandatory powers and relies upon public opinion to enforce its recommendations.

In addition, the bill contains provisions which, in the event of disputes between a public utility and the employees, the matter shall be referred for determination of the facts to the railroad commission, should the employer set up the defense that it has insufficient revenues with which to pay the increased wages demanded, and that the determination shall be made promptly by the railroad commission, it thus being the outgrowth of the recommendations of the special legislative investigating committee.

Now, as I have watched the operation of our railway system in Wisconsin, there have been two very notable influences that have caused the increase in cost of carrying passengers. One of these has been the general rise in wage level and commodity prices, and the other has been of an entirely different character.

Mr. WARREN. Before you go to that, have you described all of the legislation that you want to call the attention of the commission to?

Mr. MORTIMER. Yes; I think so. I think that is all that is important.

A part of this additional investment of \$15,000,000 in our Wisconsin utilities to which I have referred has been caused by extending our railway lines into unprofitable territory, having expenses in the way of unremunerative car mileage, car hours, track maintenance, maintenance of equipment, and, in part, by the gradual increase in length of haul over which passengers ride.

The determination was made of the average length of haul in 1911, in the city of Milwaukee, and it approximated 2.6 miles. Subsequent estimates have indicated that that average length of haul had increased in about five years an additional half mile, showing the gradual movement of population outward.

Mr. WARREN. What is that due to? Is that due to the street railways in any way?

Mr. MORTIMER. I would not say that the street railway was in any way responsible for it. It is due to the growth of the residential and manufacturing territory gradually outward, from the center of the city.

Mr. WARREN. Is it mostly within your flat-fare territory?

Mr. MORTIMER. Oh, yes; the average length of haul lies well within the flat-rate-of-fare area, the single-fare area. In other words, passengers are riding further and further.

Now, of course, its fundamental trouble is that its revenues are too low and its operating expenses are too high, but the fact that its revenues are too low may be due to either one or two causes—either that the fare is too low, or we are hauling them too far for the fare we are collecting. We have a fair demonstration of that in the case of the Kenosha situation. The Kenosha railway utility is showing a larger amount available for depreciation and return than is the Milwaukee utility, although it is operating with smaller cars and has a higher platform wage per car-mile. The scheduled speed is lower. That is due to the fact that the distance passengers are hauled is comparatively small.

There has been, during the last ten years, an incessant demand for increased frequency of service, particularly during the nonrush hours. That demand has been insistent, irrespective of the nature of line or territory served, and there have been commission orders that have

required that the minimum frequency inside given areas shall be not greater than ten minutes. That has added to the cost of producing the service, but it is probably not an unmixed evil, because the added service may, in a number of cases, have paid for itself through increased travel. Our facts respecting that are comparatively few, and what I give is merely an expression of opinion.

In all of our applications to the Railroad Commission of Wisconsin, which we believe we had timed so that if properly acted on they would have provided us with the necessary increase in revenue and would have kept the railroad utility wholly solvent and produced a reasonable return, we have never asked for an increase in fare above 5 cents.

In 1914 we limited the length to which passengers might ride for a certain fare by installing the small increment zone system outside the single-fare area. That in itself lay somewhat outside the city limits.

We have been desirous of retaining as much of the short-haul business as is possible, but the delay in commissions in acting upon our petitions has made the situation more urgent, and what would have been adequate relief for us in 1916 and 1917 and afterwards would not now be adequate relief, because the tendencies of increasing costs are on an increasing rate of increase.

We have not found that the increase in rates into suburban territory has in any way influenced the growth of the communities. We have tried, so far as we can, to make the outer ends of the lines self-supporting. That has been absolutely impossible, and I do not believe it is possible on any street railway at the present time, but the central area will have to make some substantial contribution to the cost of carrying service in outlying territory.

Mr. WARREN. Before you go to that, Mr. Mortimer—You spoke of extensions as increasing the haul, and then you spoke of the increased haul which is independent of the extensions, but which is simply the tendency of the population to live further out beyond the existing lines, as both contributing to a higher cost.

Mr. MORTIMER. Yes.

Mr. WARREN. Was there any substantial increase of line going back to the electrification of this system, in mileage?

Mr. MORTIMER. No; in this system there has been no substantial increase in mileage within the city limits, because the company was built up of seven separate systems, many of which closely paralleled one another, and in a process of gradual rehabilitation, the lines that have been too close together have been removed; so that while, say at the end of the year 1910, there was less actual track mileage in the city of Milwaukee than there was in 1896, it reached farther out into the residential and manufacturing districts and was much better distributed to serve the population.

Mr. WARREN. So that there were extensions?

Mr. MORTIMER. Oh, there were extensions.

Mr. WARREN. But you have eliminated some unnecessary mileage?

Mr. MORTIMER. Yes; we have eliminated some unnecessary mileage.

Mr. WARREN. Were those different lines merged into one company, or were they all in one company before that?

Mr. MORTIMER. The Milwaukee Electric Railway & Light Co. is a reorganization of the Milwaukee Street Railway Co., and all lines were merged in the Milwaukee Street Railway Co.

Mr. WARREN. After or before electrification?

Mr. MORTIMER. The process extended over a period of about three years, electrification and merger simultaneously.

Mr. WARREN. Prior to merger, were those companies entirely separate, so far as fares were concerned?

Mr. MORTIMER. Yes. There were no free transfers between the different lines; so many lines serving the south side of the town, running over to the river; other lines serving the north side; and still other lines serving the west side, and possibly one or two of the seven lines serving two sides, the north and the west sides.

Mr. WARREN. So that in connection with the electrification the lines were merged, and in connection with the merger the double fares were eliminated?

Mr. MORTIMER. The double fares were eliminated and the transfer system instituted.

Mr. WARREN. For the benefit of all lines?

Mr. MORTIMER. Yes.

Mr. WARREN. That amounted to a very large extension of the riding privilege in connection with electrification; did it not?

Mr. MORTIMER. Oh, without a doubt, it was a very substantial improvement in facilities.

Mr. WARREN. And from your knowledge of street railways generally over the country, would you say that was a general practice? Do you happen to know, in Boston, for instance, whether that was done or not?

Mr. MORTIMER. No; I am not familiar with the Boston situation. I know about it in St. Louis. I know that it was a fact in St. Louis.

The CHAIRMAN. You may proceed, Mr. Mortimer.

Mr. MORTIMER. Aside from the problem of increased revenues, one of the most pressing problems confronting the railway is that of labor. It has been the experience in the last few years that the strikes on electric railways have been frequent and of varying duration. Their causes have been numerous. During the last four or five months it has been increasingly difficult for the international officers of the unions to control the local unions, and there have been a number of street railways that have had sporadic strikes and outbreaks and threats from the national officers to rule the locals out of the national unions because of failure to adhere to their labor contracts. That spirit or feeling is fairly general throughout labor, prompted partly by the increase in the cost of living and partly by some of the spirit of unrest that has apparently been wafted across the ocean. The rises in hourly rates for the same number of hours per day worked, resulting from some of these recent wage awards, have been larger than the cost of living experienced since the award of the National War Labor Board. Some of these hourly increased rates of wages may be justified on the shorter number of hours worked a day and the fewer days per month, but as a general proposition I think most students of the labor problem will indicate that something different from the present day scheme of arbitration will have to be developed. And I know in the electric-railway business that we need a much keener re-

sponsibility on the part of the workmen in their duties to the employer and in their duties to the public, to the end that service may be maintained at a minimum cost and that it may be operated with minimum interruptions, that the convenience of the public may not be disturbed.

It is also desirable as far as possible to incorporate the element of productivity as a basis of wages. That looks as though it might be difficult in the railway business, but it is not as difficult as it might appear at first glance. The trainmen forming a part of the employees making up the principal group have primary control over the regularity of speed and the ability to maintain fast schedules and thus influence the cost of platform labor per car-mile. Usually they are paid on the basis of hours—that is, a rate per hour—and the faster the cars are operated the less will be the expense of producing the service. They also have control over the power conduction through care in operating the car, care in braking, care in starting, and care in shutting off power when the same is not required in order to make its schedule. It is conceivable that the schedule makers could design a time schedule that would appreciably reduce the cost of platform labor per car-mile but would require the cars to operate so fast that they would not have time to stop for passengers. That that is not an exaggeration is disclosed by the experience of the old St. Louis Transit Co., under the operation of the late Mr. A. B. Du Pont. He was pressed because of his increase in operating expenses by the management, and he concluded, of course, that the way to reduce operating expenses for giving the same car mileage was to run the cars faster. So he ran the cars so fast that they did not have time to pick up any passengers, and the result was that the passengers usually went to the street intersection with a brick in their hand, and if the car did not stop for them they threw the brick at the car. The damage to equipment was considerable; and it finally resulted in the imposition of a license tax on the system, a gross-receipts tax of 2 per cent. It was thought that by imposing that tax it would require the cars to stop and it also would placate somewhat public opinion at the outrages that had been committed on them.

Another element in which the trainmen are primarily interested is the revenues per car-mile. So a productivity system of wages can be arranged whereby an agreed hourly rate, graduated, if you please, can be provided as a minimum, and in addition thereto a system of participation in the savings which the employee may effect, first by reason of decrease in injuries and damages; second, by the saving in power consumption; third, by increasing the schedule speed; fourth, by the maintenance of equipment over which the trainmen have control; and fifth, through increased revenues per car-mile. Such a system when extended can be made to develop one for the administration of discipline. An employee may start out at the beginning of the month with 1,000 points to his credit, and for each infraction of rules or justified complaints on the part of the public deductions can be arranged so that his participation in the aggregate profits for the month, profits resulting from the savings under these standards, will be reduced, but his saving—that is, the money that is taken from him—should go to the other employees

of the group, so that it can not be said that the employer is disciplining the men for the purpose of increasing his net earnings.

It is also possible to put all accounting work on a productivity basis, and there are some psychological aspects to that. Fundamentally and individually workmen, be they male or female, are desirous of being placed on an individual basis of compensation. Now, that is strongly urged against by certain classes of organized labor. But it has been our experience that where there has been this gain-sharing plan in certain departments that we have had demands from other departments—from the employees of those departments—that they be installed. In other words, my actual experience with operations of that kind is different from the general published results.

I am not suggesting that this will fundamentally take care of increases in wages, because there are no economies which employees can effect, at least in sufficient magnitude, to compensate them for the increased cost of living, either actual or imagined. But they are small elements which tend to develop care on the part of workmen and which in turn have their influence in adding to the life of the physical property under their jurisdiction and tend to develop a certain amount of individual pride and individuality.

Commissioner SWEET. That would stabilize the labor market to a certain extent, or have a tendency in that direction?

Mr. MORTIMER. Yes; it does tend to stabilize the market. It holds out to employees first a certain return for the month in the way of wage compensation and in addition it offers to them a speculation, and desire to speculate is inherent—

Commissioner SWEET. A reward for extra good conduct?

Mr. MORTIMER. Well, it is a reward for extra good conduct, but it is that same—it originates from that same brain cell that causes men to go into the desert for the discovery of gold mines. There is an intense curiosity invariably displayed as to what the results of the earnings from the gain-sharing plans are going to be for that particular month; and it has the further advantage that through the operation of the plan you can disclose some of the most intimate details of operation to the employees and show to them the influence of changes in conditions and of their own conduct upon the results for the month.

Commissioner MEEKER. Would you extend the sharing plan to a share in the management of the industry?

Mr. MORTIMER. Yes. We have done that in most of our companies. We have provided for the election of a representative of labor to the board of directors. In fact—

Commissioner MEEKER. Will you elucidate that plan briefly?

Mr. MORTIMER. The last thing I mentioned?

Mr. WARREN. Yes; the representation on the board of directors.

Mr. MORTIMER. Yes. We first provided in our group for the election by the Employees' Mutual Benefit Association of a representative to the board of directors of the Union Electric Light & Power Co., the electric utility in St. Louis. The by-laws provide for seven directors. One of those directors is now a direct representative of the Employees' Mutual Benefit Association. The Employees' Mutual Benefit Association first asked for representation upon the board of directors and we acceded to that request.

Commissioner MEEKER. How long has that plan been in operation?

Mr. MORTIMER. That election took place, I think, in March of the current calendar year. The employee was chosen by a process of primary nominations at which two were selected to run for the election; and then an election was had to eliminate one or the other, and the man chosen to represent the Employees' Mutual Benefit Association on the board of directors is one of the watch engineers in the Ashley Street power station, and he sits in at each of the monthly board meetings. The same thing is now in process of working out in the Wisconsin Gas & Electric Co.

Commissioner MEEKER. Does this employees' representative have the same power as other directors?

Mr. MORTIMER. Absolutely. He has absolutely the same powers—the right of vote and the right to discuss questions of all kinds.

Commissioner MEEKER. Does he have to have a share in the capital of the industry, or—

Mr. MORTIMER. Yes, the law requires that the directors be shareholders in the States in which we operate. That is not true of all States. And in this case he was qualified by the company's transferring one share of stock to his name, so that he is legally entitled to sit as a member of the board of directors. It is all being worked out in the case of the Wisconsin Gas & Electric Co., and in the case of the Milwaukee Electric Light Co. certain changes of our articles of incorporation will have to be made, but that will be done, I hope.

Commissioner MEEKER. This employees' representative was chosen by the Employees' Mutual Benefit Association?

Mr. MORTIMER. Chosen by the members of the Employees' Mutual Benefit Association, which embraces all of the employees of the company.

Commissioner MEEKER. All employees?

Mr. MORTIMER. All employees.

Commissioner MEEKER. Is that an organization that stands on its own feet or is it subsidized by the company?

Mr. MORTIMER. It is an organization that has two principal purposes in life: One is to administer sick benefits and death benefits, provide medical and surgical attendance for the employees, and also to provide additional insurance of both life and sickness and accidents, off-duty types. In respect to certain of its insurance benefits where the rate is flat and that business does not carry itself, the premiums are not sufficiently high, it is necessary for the company to make contributions. Its other principal function is that of collective bargaining, and in that respect of course it needs no contributions by the company.

Commissioner MEEKER. By collective bargaining, you mean settling upon the wage and hours?

Mr. MORTIMER. And conditions of labor, yes.

Commissioner MEEKER. And conditions of labor within the company?

Mr. MORTIMER. Yes; within the company.

Commissioner SWEET. Do you like that plan of representation on the part of employees?

Mr. MORTIMER. On the board of directors?

Commissioner SWEET. Yes.

Mr. MORTIMER. Yes; we have no objection to it at all. I think it is a perfectly satisfactory thing; in fact, we would have no objection to giving them a larger representation.

Commissioner MEEKER. Did the plan originate with the men?

Mr. MORTIMER. Yes.

Commissioner MEEKER. And you acceded to it?

Mr. MORTIMER. Yes.

Commissioner MEEKER. It was not your proposal?

Mr. MORTIMER. No; it was not our proposal.

Commissioner MEEKER. Before you leave the question of labor relations, I would like to ask a little bit further about this gain-sharing plan that you have. Do the employees actually have an appreciable control over accident prevention?

Mr. MORTIMER. They do.

Commissioner MEEKER. Do you think you have statistical demonstration of that?

Mr. MORTIMER. Yes; we think we have.

Commissioner MEEKER. Your actual rate has been cut down since this plan was put into operation?

Mr. MORTIMER. Our actual disbursements for injuries and damages have been materially less since this plan was effected.

Commissioner MEEKER. How long has this plan been effective?

Mr. MORTIMER. This plan applicable to transportation in conjunction with our employees has been applicable since June, 1915—a period of four years.

Commissioner MEEKER. Have you statistics which would bear upon this subject? Of course, other causes have been operating to cut down the accident rates; the general safety movement and the workmen's compensation movement, and other movements. Do you think your experience is better than the experience of other companies in a similar line of business?

Mr. MORTIMER. I know in many cases the electric railways have experienced an increase in the cost of injury and damage settlements.

Commissioner MEEKER. However, that verges on quite another question, the competence of administration of compensation laws and increases in rates, which have been quite general in all the compensation States, and various other matters.

Mr. MORTIMER. But, Mr. Commissioner, the injuries and damages to which I refer and upon which these calculations are based relate to injuries and damages to the public and have no relation to workmen's industrial injury compensation.

The CHAIRMAN. Mr. Mortimer, yesterday afternoon the commission assigned the hour of 12 o'clock to hear Gov. Foss.

Mr. MORTIMER. Yes, I remember that.

The CHAIRMAN. I understand that he is here now, and you may resume at the conclusion of his testimony.

(Witness excused.)

The CHAIRMAN. Gov. Foss, we are ready to hear from you.

STATEMENT OF MR. EUGENE N. FOSS.

Mr. Foss. Gentlemen, you will understand that I am here in a private capacity. I do not represent any corporation. But I have been and am still a large holder of street railroads and quasi-public corporation stock. I have been a great believer in quasi-public corporations. I have been a director in many street-railroad corporations in Massachusetts and also in New York—in the two leading systems of New York, the Brooklyn Rapid Transit and the Manhattan Elevated; and I have been more or less acquainted with this class of investment and have followed it for a good many years.

I have come to the conclusion, somewhat reluctantly I admit, that public ownership is the only true solution of this railroad question, whether it be the railroads or the electric railways. Of course, private ownership is out of the question. Private ownership with public regulation has fallen down. There is nothing else left, in my judgment, except public ownership and operation or else public ownership with private operation. Public or private ownership and public regulation is wrong in principle. You never can make it work successfully. The man who owns these properties has got to run them.

Now I am interested in this proposition primarily because it means a better democracy, and we have got to democratize our transportation system in this country. That is the first thing we have got to do. And then we have got to democratize our industries to a greater extent than they have been, otherwise we are going to be in the condition that they are abroad in some places. So I say, primarily I am for this thing because it means a better democracy.

There are a great many reasons. Of course, it has been stated—you read the public press and you would think that we had public ownership in this country of the railroads. We have not public ownership in this country. We do not know anything about public ownership in this country. We have not tried it. What we have in this country is a lease by the Federal Government of the railroads of the country. But when was that lease made? That was made under the stress of the war, when the railroads fell down and could not function. And what was that lease? That lease was forced upon the Government at a rental of \$930,000,000 a year, which is from \$130,000,000 to \$150,000,000 more than the Government ought to pay as a fair return. The Delaware, Lackawanna & Western get under this thing something like 32 per cent on their stock, I think; the Pennsylvania Railroad gets about 12 per cent. Some of the weaker roads do not get as much. Now this deficit of \$200,000,000 in 1918 was not properly chargeable to inefficiency on the part of the Government. Practically the same people are operating these railroads under the Government that there were prior to the Government taking hold of this question. It was chargeable directly to the war, just as much as the billion dollars we lost in making aeroplanes is chargeable directly to the war.

Now a proposition as large as this, as Director General McAdoo says, takes five years to work it out and effect the economies that could be effected under Government ownership; no question about it. It takes time. Director General Hines says give us time and we can show you wonderful economy. Talk about efficiency. You can

get just as good efficiency—I will not concede for a single moment that you can not get just as good efficiency under Government ownership as you can under private ownership—just exactly as good.

We have had cases in Massachusetts—for instance, our metropolitan water system if you please, created 25 years ago, in which a commission, a nonpartisan commission, appointed by the governor has spent \$40,000,000 on a water system for Boston, one of the best in the country. It gives us the cheapest water. That commission paid off \$20,000,000 indebtedness to-day, and we will have it all paid off, and there has not been a word of scandal about the management, no graft or anything of that sort. I had no trouble when I was governor of Massachusetts for three terms to find the best patriotic men in the State to take these Government positions. It fell to my lot to rebuild the court of Massachusetts, both branches, and I did not have any trouble about getting the best men in the State at the very moderate salaries paid by the State of Massachusetts to its judiciary; no trouble about it at all.

It is a reflection upon our intelligence and upon our business capacity. I am not willing to admit that the Post Office is not well handled, economically and efficiently handled. I know you can put a package in the mail in Boston and get it here to Washington quicker than you can by express. I am not going to stand for that sort of thing. We can do just as efficient work under Government ownership as we can any other way; no doubt about it at all.

And there is the question, gentlemen, of the capital. How are we going to get capital for this purpose, for these railroads? You can not turn them back; it is utterly impossible. If you gentlemen will read the indictment of the Interstate Commerce Commission of the New Haven Railroad and Mr. Mellen, I do not believe there is a man in this room who ever read it who can stand up and say he is in favor of turning these railroads back to the crowd that wrecked them. We never will do it in the world. In the first place they can not take them back, and they ought not to take them back. Banker management has got to cease from all of these railroads and public-service corporations. It is a failure. Why? Because the temptation to wreck these roads and reorganize them is too great. They do it every 10 years or thereabouts; that is what happens. Do these railroad presidents and these railroad managers, who own very little of the stock of the companies you will find—do they ever consult their directors or stockholders in reference to any measure? No; they go right down to Wall Street and talk with the banker who is running the proposition. That is the man who appointed them—the banker, not the directors. Mr. Mellen did not use to know his directors when he met them on the street; he never knew them. Some of the directors have told me that they did not speak to him. Where did he go? He went down to Morgan's office. When Mr. Morgan said that so and so was all right, he went right ahead. That is what happened. They have got to take their hands off. The country is going to demand it and say we are going to democratize these things. Labor and these other forces are going to have more to say.

Again, we tried in Massachusetts everything. We were the first State in the Union to have a public-service commission, or a railroad commission—right there in Massachusetts. And our railroad stocks, you know, for years have been sold there by the companies

at a price fixed by the railroad commission, and our investors have bought those securities. Widows and orphans and trustees have put their money in these railroad securities and quasi-public corporation securities in Massachusetts, because they thought they were the next thing to Government bonds, because they considered that nothing could happen to them, since the State fixed the price at which the stock should be put out and also fixed the tariffs on the railroads. But we saw New York, New Haven & Hartford stock go from 250 to 25, while the commission could say the New Haven stock should not be put out at less than \$200 a share, which it was worth, and Boston Elevated, selling at 155, some of it—and really \$135 to-day represents every dollar put in the property—still this stock sold down to 27 or 28. Thousands of people were ruined. I know of women in Massachusetts who are working to-day who had a small competence put away in these stocks which has all been wiped out.

Now, this thing has got to stop. The State is morally responsible for that condition to-day and ought to be responsible in equity, and the people are going to see to it that they are. These quasi-public corporation stocks have got to cease being speculative footballs. That is my judgment about it..

Now this question of labor: It is a very big question, as we all know. Who can settle it better than the Government? Who can handle this labor proposition in an equitable, fair, and just way to all concerned more than the Government? We have got to appeal to the Government. Did not the railroads come to the Government and appeal to the President to settle the railroad strike prior to the war? It is the same thing; they can not do it otherwise. Labor is going to make these demands, and whether they be just or whether they be unjust, let the Government settle it. It is a Government proposition. Let them settle it.

Now I say we tried almost everything in Massachusetts. We have a scheme there on the street-railroad question and the whole State it stirred up about it, of a service-at-cost plan. It was created a year ago, in 1918, by an act of the legislature, by which the governor appointed five trustees to run the Boston Elevated Railroad, which is the entire street-railway system, both the surface, subway, and elevated lines, of the whole city of Boston and its suburbs. They have been running the roads, they have advanced the fares steadily until they are now 10 cents. They were put at the 10-cent rate about a week ago or thereabouts. A strike by the employees immediately followed which has been adjusted after the railroad was closed up for four days and the public suffered a great inconvenience. But what has been the result? The result has been this—that 25 per cent less people patronized the railroad because the fare was 10 cents. Now that railroad is not serving the people as it ought to, if 25 per cent of them can not ride on account of the price. The revenue has fallen off about \$4,000 a day. That act is abortive; it is a make-shift; it is doomed to failure. It is neither satisfying the riding public nor will it result in increased revenue.

I want to ask you this question: Everybody is taxed to make this street out here safe for the automobile. The Supreme Court said that a railroad is a part of the highway. Why should not everybody be taxed to make the people's automobile, the electric car, safe? Answer that question for me, if you can. If that is socialism, then I

am a socialist. That is what we have got to come to in this country, and it is right that we should come to it, too.

The street railroad is a necessity, it is a part of our social and industrial life. Now I am the head of a manufacturing establishment employing 2,000 operatives in the suburbs of Boston. It is not possible for those operatives all to live within walking distance of that plant, neither is it possible for their children to be within walking distance of those schools that they must attend. We have got to have that means of conveyance and we have to make that means of conveyance as cheap and reasonable as possible, I say, in the interest of a better democracy.

We used to have post roads in this country. We used to have toll bridges. They have all been wiped out. Now that thing is all covered by general taxation, and we have got to cover a great deal of the operation and the construction, if you please, of these street railroads by taxation—no doubt about it in my judgment; you can not get around it. These street railroads in Massachusetts have abandoned, within the last few years, miles of these tracks in the suburbs. People have built houses along these tracks supposing that these tracks were laid there under the direction and approval of the public-service commission as a public necessity. Are these people now to be cut off from all forms of transportation? Is the State liable? I say they are; they ought to be liable. That construction ought never to have been permitted if it is not going to be maintained.

Now, we are going to have a campaign in Massachusetts this fall and determine some of these questions. It is right on now, in fact it has reached such a crisis that the governor of the State sent a special message to the legislature yesterday in which he asked to be permitted to appoint a commission of seven to make an investigation of the street-railroad question, and have a special session of the legislature from the 15th of November to consider the question and that question alone. We are going to do something there in Massachusetts, and I predict that we are going to come to government ownership as the only thing. I know that I could work out a plan, and I could find a body of men in Massachusetts or any other State in the Union honest and patriotic enough to conduct these street railroads just as honestly and just as fairly and just as economically for the State as they could for the Standard Oil Co. or any other organization there is in the country. There is no reason why our young men and boys should not work for the State and Government just as efficiently and just as honestly as they would for any other corporation. And it is a great mistake not to admit it. I will not admit for a single moment but what, when we get Government ownership in this country—as we are going to get, in my judgment, and we ought to have it, as applying to all these railroads—you are going to see marked and wonderful economies in all respects. The public can not get a square deal through a private corporation, even if it is publicly regulated. It can not do it; it is utterly impossible. And I do not see, as I say, any other solution.

The people say, "Oh, we must keep these railroads out of politics." Good heavens, have they not been in politics? Are they not in politics? They have been in politics for 50 years. What did I find on Beacon Hill in Boston? I found out that the greatest lobby of the State was maintained by the quasi-public corporations. The king of

the lobby who was employed by the Boston Elevated Railroad received a salary of \$25,000 a year. One corporation paid that amount for one man, and he had a train of followers. And it is the quasi-public corporations who have done more than any other force in this country to debauch legislatures. They have made legislatures and unmade legislatures and unmade men. They have created the legislatures. Now what we have to do is to take these street railroads over and keep them out of politics. That is what we have to do. We have got to take them over to keep them out. That is the proposition as I see it.

I should be very glad indeed, Mr. Chairman, to answer any questions that I can. I do not pretend to be an expert, but any questions you should like to ask I should be very glad indeed to answer in the best way I can.

THE CHAIRMAN. Mr. Warren, do you wish to ask the governor any questions?

MR. WARREN. I do not think I do. I think the governor has described the street railway situation in Massachusetts about right.

Commissioner SWEET. You have expressed your opinion very clearly and I think we all understand what your view is on this subject, but there are a few points that I would like to ask some questions on with regard to government ownership. In the first place, have you any figures or data or statistics upon which you base your opinion, or is it rather evolved from your own consciousness as to what you think is right?

MR. FOSS. I have no figures, neither have I attempted to make any. My opinion is entirely from my own experience in the last 25 years as on boards of directors and as owner of street-railroad securities and railroad securities generally.

Commissioner SWEET. Would you apply the same reasoning to all public utilities that you apply to street railroads?

MR. FOSS. Yes, I would. The gas companies, electric companies, water companies—water companies are almost wholly taken over now. I think we have to take over all the gas and electric-light companies.

Commissioner SWEET. And steam railroads?

MR. FOSS. And steam railroads—the whole business.

Commissioner SWEET. And the telegraph and telephone?

MR. FOSS. Yes, the telegraph and telephone.

Commissioner SWEET. I suppose you have given consideration to the fact that that would mean a tremendous number of people under Government employ?

MR. FOSS. Yes, I do.

Commissioner SWEET. And I presume you would admit that that might have some disadvantages and perhaps some advantages?

MR. FOSS. I do not see any menace in that proposition at all. You take your postal authorities to-day; I can not tell you how many we have, but they are no menace as I see it. Some of them are Republicans, some of them Democrats, some Prohibitionists, some Socialists and what not.

Commissioner SWEET. The postmasters are almost invariably of the same party as the appointing power.

MR. FOSS. Yes, of course. Our civil service is very properly extending its duties and service and I think will do more so as our

Government gets better and stronger, as we get to be a better democracy. As I say, I am talking about a better democracy.

Commissioner SWEET. You think a properly enforced civil-service system would obviate the objections which might be raised?

Mr. Foss. Entirely. When the changes of administration come we are not going to change the managers of any of these railroads; no president, no general manager, no engineer is going to change his position at all. He does not change with the administration.

Commissioner SWEET. Has it not been your experience, Governor, in public life, that governmental officials are usually very poorly paid?

Mr. Foss. Yes, that is true, they are poorly paid.

Commissioner SWEET. Don't you think the public will require considerable education before it will consent to pay for the kind of service which it ought to have to run these utilities?

Mr. Foss. No, sir; I do not. I will tell you, I have dealt with the public a good deal all my life. I have been close to the public. I have been a large employer of labor all my life. I have been close to that labor. I have not had labor troubles. And I think I know something about the public. My theory is this, that when you tell the public the whole truth you never have any trouble. They are the most reasonable thing to deal with that there is on earth, the great public, when you just tell them all the truth. But when you tell them only half of it or a part of it or cover something up, then the devil is to pay, and properly so, too. But when you tell them all the truth they do not object to a large salary. Let them understand they can come right up from the ranks the same as they can in our Government, and if they have the qualities to become general managers and presidents of these railroad corporations that position shall belong to them and to nobody else. How are these presidents created to-day? How are these general managers created to-day? They are created by the bankers that control these roads. A great many of them are inefficient and have been for years. Perhaps we are getting more efficiency to-day than we have got before, but I tell you you will not have any trouble if you tell the public the whole truth. But the trouble is we lie to the public and deceive the public and only tell them part of it; and you can not get along that way.

Commissioner SWEET. In Massachusetts while you were governor, did you think public officers were properly compensated for the work they did and the brains they put into the work?

Mr. Foss. No.

Commissioner SWEET. Why did you not explain that to the public and get the change made?

Mr. Foss. I did so far as I could.

Commissioner SWEET. But you could not do it; could you?

Mr. Foss. I got the State to advance the salaries of all the judges. We have an appointive system of judges in Massachusetts, and I got the State to increase their salaries.

Commissioner SWEET. Are you familiar with the situation in the smaller cities of the country with regard to public employees?

Mr. Foss. I think I am to some extent, but I am particularly in Massachusetts. I do not know so much about the other States.

Commissioner SWEET. Let me state to you an experience which I think is typical of a great many of our cities of the smaller size. I

was connected with the city government of a city of a little over 100,000 inhabitants. We employed a general manager of our board of public works and, under the city charter, the maximum price we could pay him was \$4,000 a year. That man was a very public-spirited man and a very competent one, and he made an excellent showing in the way of saving for the city in economies of various kinds and in efficiency. A private corporation offered him six or seven thousand dollars a year. There was no way in which the city could pay him more, although he was admitted by all intelligent people of the city to be worth more, and finally against his own wishes—for he would have preferred to stay with the city government—his financial situation practically demanded that he resign his public employment and accept the private employment. Now then, I believe, Governor, that that is the situation that you will find in a great many of our cities of moderate size and that the public, at the present time at least, is not willing to properly compensate for real first-class service.

Mr. Foss. Oh, I will admit that is so to some extent, but I will tell you that if the public believed that they were getting a square deal you would not have any trouble about advancing that fellow's salary.

Commissioner SWEET. Now, to come to the street-railway situation, is it not a fact that labor—that is, wages and the cost of material and everything that street-railway companies have to buy—has materially advanced in price?

Mr. Foss. Oh, doubled.

Commissioner SWEET. And can you name a single industry in the United States that could stand that without an increase in income?

Mr. Foss. Of course not; certainly not.

Commissioner SWEET. Then this situation as it exists to-day with the street electric railways is one which any intelligent man would expect it to be; is it not?

Mr. Foss. Surely.

Commissioner SWEET. It could not be otherwise.

Mr. Foss. No, it could not be otherwise. But I want to tell you why it is due to that fact. You see, these public-service commissions in the States and in the Nation have not got courage enough to advance these fares. They are honest men. I appointed some of them—

Commissioner SWEET. Are they not prevented by law in many cases?

Mr. Foss. They may be to some extent, but they are not in Massachusetts. I appointed the railroad commission in Massachusetts, most of them who are serving to-day; five splendid men, who have not courage enough to do it. Why haven't they courage enough to do it? Because the railroads have grafted and they have stolen and have wrecked their properties and have lost the confidence of the public to that extent that there is no railroad commission that can stand up for a single moment against the public and do what they ought to do and what they know they ought to do. You talk with any one of these public-service commissioners in that State or in the Nation and they will tell you these fares ought to be doubled; if these roads go back to private ownership the rates have to go up, not 25 per cent, but 50 per cent.

Commissioner SWEET. Are you not aware in most States the right to raise fares is under the control of the State commissions?

Mr. Foss. Certainly.

Commissioner SWEET. Are they not under governmental orders?

Mr. Foss. Certainly.

Commissioner SWEET. Are they not under governmental officials?

Mr. Foss. Yes.

Commissioner SWEET. Just the same as they would be if the whole thing was under the control and operation of the Government?

Mr. Foss. Yes.

Commissioner SWEET. Are not the companies as a rule anxious to raise fares and are they not in many cases obstructed by these public service commissions?

Mr. Foss. I think the public-service commissions are ready if they felt that public sentiment was behind them, but the public will not stand for it, because they feel that they do not know the whole truth, they have not been treated right. That is the condition in Massachusetts. I have talked with the public-service commissioners and they openly say so.

Commissioner SWEET. Is not this condition of not having been treated right rather a tradition from years ago rather than a condition that exists at the present time?

Mr. Foss. Well, I think that is true. I think the condition in the country to-day is better than it ever has been as to integrity and honesty.

Commissioner SWEET. Then you think if the public fully understood the situation as it is to-day and realized the fact that these companies can not do business unless they can increase their income and that they are at the present time being for the most part honestly and capably managed, do you think if the public were convinced of the truth as it stands that it would readily acquiesce in an increase of fares and would pay them without demur?

Mr. Foss. No; I do not put it so broadly as you put it. They would to some extent, but the public have got the idea which I have advanced here, and very properly in my judgment and the right idea too, that a portion—not all, but a portion—of this expense must go into general taxation.

Now we are making the car rider pay the whole bill. I will illustrate. In my own family there are 10 adults and we have 8 grandchildren, the oldest one only 6 years old. We have 9 automobiles to carry those 10 people around. I am the only fellow who ever uses the electric car. Every one of my sons and daughters and my wife never step into one. I do not believe they have been in an electric car for five years. When they want to go any place, the automobile is standing at the door and they go in that. When we get around the dinner table at night, as we do once in a while, the first thing they will do is to kind of touch the old man up about prohibition and then they will start to talk about the roads. One of the boys has been out here and he struck the damnedest roads he ever saw in his life, and he begins to score the State commission and the selectmen of the town and everybody all down the line because we have such poor roads. Should not he be taxed as everybody is taxed? The poor man in my factory is taxed to make that road

safe so that fellow can ride on it. Should not the rest of them be taxed so as to make these street railroads safe? It is part of the highway. There is no reason why that track down there should not be laid and maintained and supported by the taxpayers or why another corporation should not own the equipment and operate it under Government ownership. We do not necessarily have to have Government operation. You may have private operation if you please, but that is the way this thing has to be divided.

We have a system of subways in Boston which is equivalent to streets. All of Washington Street and Tremont Street and under the common is made into an underground street, and we enter the stores in the basement from these subways, and that is all taxed upon the car rider and the car rider is decreasing all the time because the number of automobiles is increasing and the people buy those whether they can afford a house or not. They buy an automobile and ride in it. Now they are putting all that burden on them and it should not be on them at all. It all belongs to the public—every bit of it. You have to recognize it. It is foolish for us to stand up and not recognize these things in the interest of a better democracy, as I say.

Commissioner SWEET. Is it not possible to make a great many changes and improvements in our taxation system and various other matters without going to the full extent of public ownership and operation of these railroads?

Mr. Foss. I do not believe you can do it.

Commissioner SWEET. Is it wrong, in your judgment, that the street railroad companies should be required to pave between the tracks?

Mr. Foss. Yes; it is. I think—

Commissioner SWEET. Very well. Could not that be changed by legislation, by the public?

Mr. Foss. You may do that. That is right.

Commissioner SWEET. Is it wrong, in your judgment, for the public to expect twice as many miles for a nickel as they got 15 years ago?

Mr. Foss. No; it is not right.

Commissioner SWEET. They ought not to expect it?

Mr. Foss. Oh, no. They ought to expect higher rates. I agree with you. Somebody has to pay it.

Commissioner SWEET. They ought to expect to pay in proportion to their use of it?

Mr. Foss. Somebody has to pay it; yes.

Commissioner SWEET. They ought to expect to pay in proportion to the service they receive.

Mr. Foss. Yes; some one has to pay it.

Commissioner SWEET. Are they doing it to-day?

Mr. Foss. No; they are not.

Commissioner SWEET. Then it is not a fact that the street-railway companies are attempting to give the people too much for what they receive in compensation?

Mr. Foss. They are, of course; no doubt about that. They are giving them too much. They are bankrupt—the whole thing is bankrupt.

Commissioner SWEET. If you had Government ownership and operation your idea would be, I take it, to adjust that upon just as equitable a basis as could be?

Mr. Foss. That is right.

Commissioner SWEET. Ought not the same thing to be done under private ownership and operation?

Mr. Foss. I do not think you can do so.

Commissioner SWEET. Whether you can or not, ought it not to be that way?

Mr. Foss. Yes.

Commissioner SWEET. And if they are to remain under private ownership then the public ought to be educated up to the point of willingness to do what is fair and square and compensate the railroad companies properly for what they receive; is not that true?

Mr. Foss. We have been trying to do that all this time, under private ownership with public regulation; and I say it has fallen down and gone to pieces and you can not revive it.

Commissioner SWEET. You believe it is hopeless?

Mr. Foss. Hopeless, perfectly so; because it is wrong in principle. If you own a piece of property, are you going to let John Jones come in and tell you how you shall run it? Not on your life. You will run it as you want to; it is your property. Now these stockholders own these street railroads and the railroads of the country. Now they ought to run them. I believe the Government had better turn them back without any strings on them if you are going to have private owners and let them live like any other private corporation—let the survival of the fittest exist, if you please. We did that in the early days. What did it result in? In paralleling a lot of lines and bankruptcy and everything of that sort. A street railway is not a thing of competition; it is a monopoly, just remember that. You can not do it that way.

Now that has fallen down and we have got to come right back to the thing that the Supreme Court said—that these railroads are highways and that no profit should come from them other than a fair return upon actual money invested. Anything above that should go to the people, either in reduced fares or in some other way, in building up the property. Some of these railroads have only paid out a portion of their earnings. They are strong and they have accumulated tremendous surpluses to-day. As I say, the Delaware, Lackawanna & Western are getting 32 per cent allowed them by the Government because they have piled up this great surplus and charged these rates, and which ought to have gone by all justice and right to the people.

We have got to reverse our policy—we have to reverse this thing, as I see it, in the interest of the Nation and in the interest of a happier Government. We have got to do it.

Commissioner SWEET. I do not want you to infer from the questions I have asked you that I am altogether at variance with your views.

Mr. Foss. No.

Commissioner SWEET. But whether I am or not, I thought perhaps some of the points I have asked you about ought to be elucidated a little further.

Mr. FOSS. Yes.

COMMISSIONER SWEET. So far as I am concerned, I have no further questions to ask.

The CHAIRMAN. Governor, this commission has been appointed to make a study of the street-railway situation, because it is assumed to be in a very critical situation. You offer as a remedy public ownership. Is it not true that it would take a long time to bring the country to the point where it will take over these utilities and operate them as public institutions?

Mr. FOSS. I think we are right ready for it this minute. I think we shall do it in Massachusetts before the snow flies, almost—we can not do it as fast as that, but we are going to do it in Massachusetts right away. We have reached a crisis in Massachusetts; we are in the worst condition. I got in the car here to come from the station, and they only taxed me 5 cents. In Boston if you ride two blocks they tax you 10 cents. They are up in arms.

The CHAIRMAN. Are there not some States where the constitution would have to be changed before you took over these properties?

Mr. FOSS. That may be; I do not know about that, but I think we can do it in Massachusetts, and we are going to. We have tried out everything else, service at cost and everything we can think of, and we have got to come to it.

The CHAIRMAN. In the States where the constitution forbids it, your remedy would be rather hopeless, would it not?

Mr. FOSS. Certainly. We have a constitutional convention in Massachusetts which has been working the last year, and they come into session immediately when the legislature adjourns next week; and that proposition is going to be put right up to them.

The CHAIRMAN. Are there not also a great many municipalities in the country that are bonded now to the limit of their capacity and it might be very difficult for them to take over these properties?

Mr. FOSS. Well, I will tell you I do not agree with you on that. It is surprising—when the war broke out we did not know we had so much money. We did not know we could raise \$30,000,000,000 in this country and loan \$10,000,000,000 to other countries. Nobody knows where it came from, but there is more money in the savings banks than before the war; and we have loaned all this money and I guess we are so rich it would not make a particle of difference.

The CHAIRMAN. Well, it is true, is it not, that where those conditions exist you would have to have new legislation?

Mr. FOSS. Undoubtedly.

The CHAIRMAN. And is it not also true that before any of these municipalities could take over these properties there would have to be new legislation by the State?

Mr. FOSS. Yes.

The CHAIRMAN. That all speaks for time; does it not?

Mr. FOSS. Yes.

The CHAIRMAN. During the working out of this scheme of public ownership what is to be done with these utilities, assuming that they are in a desperate condition?

Mr. FOSS. I say, go to it immediately.

The CHAIRMAN. Well, what?

Mr. Foss. Well, go to it right off. We are going to get it in Massachusetts, we are going to take it up there. We are not going to wait for the Nation to act.

The CHAIRMAN. Your solution, then, is Government ownership?

Mr. Foss. Yes.

The CHAIRMAN. That is the only thing you have to offer?

Mr. Foss. That is the only thing I have to offer; or Government ownership and Government operation or Government ownership and private operation, but Government ownership first.

The CHAIRMAN. Then do you believe that the one function of this commission which has been appointed by the President is to make a recommendation to the country in favor of Government ownership of these utilities?

Mr. Foss. I think that would be the greatest report you could make. It would mean more to the people of this country than any report that has been made in my memory, because this is the greatest question in the country. It affects the food question. Transportation is a great question which enters into the cost of everything, and into the cost of food to-day. Now, you are talking about these packers and the conditions existing now. It is on the public mind. You ride on these street-cars and see what people are talking about. Transportation plays a very important part, and these rates have to be very materially advanced right away, whether the Government holds the ropes or not.

The CHAIRMAN. You have spoken about the Massachusetts situation.

Mr. Foss. Yes.

The CHAIRMAN. You say they are going to take some action in November?

Mr. Foss. Yes.

The CHAIRMAN. In your judgment will the State decide in favor of State ownership of those utilities or municipal ownership?

Mr. Foss. In Massachusetts, you see, Boston—within 10 miles from Boston—is half the population of the State. We have a population in Massachusetts of about 3,500,000 and about 1,500,000 are within 10 miles of the State House. We do a great many things by the State in Massachusetts that are done by municipalities in other communities, because our metropolitan center of Boston with its suburbs is such a large part of the State. But I think—as I say—when I say public ownership I mean municipalities or States.

The CHAIRMAN. But in most cases it would mean by the State?

Mr. Foss. Well, it would be in a great many instances. Probably in cities like Springfield and Worcester and Boston it would be the municipality. In the smaller towns—you see we have a great chain of suburban roads all through the State and a good many miles of them have been abandoned because they can not pay under this present condition, and the State has to do something about them. They can not abandon these roads that are a public necessity.

The CHAIRMAN. Let us assume the State took over all those utilities, what fare would you charge for the service?

Mr. Foss. I do not know. That has to be worked out. My judgment is here that the 5-cent unit fare in our large cities has got to stand.

The CHAIRMAN. Then you believe the State should operate these companies and charge a 5-cent fare and make up the deficit from an appropriation?

Mr. Foss. Not in all cases; do not misunderstand me. It has to be worked out in separate cases. I say in all our large centers like Boston, New York, Washington, they have to hold to the 5-cent fare because that is the unit that we have been accustomed to, and I think that is what will satisfy the public, but it would not apply over a road running from here to Georgetown or Richmond. That is another kind of service.

The CHAIRMAN. But under the present standard of wages and operating costs those companies could not afford to operate on a 5-cent fare.

Mr. Foss. Oh, no.

The CHAIRMAN. Then there would be a large debt which would have to be taken care of by taxation?

Mr. Foss. Surely.

The CHAIRMAN. And now do you think it is just to the property owner and citizen living remote from the city of Boston that he be taxed to pay for service which is given to the people who ride upon the streets in the city of Boston?

Mr. Foss. Yes, I do.

The CHAIRMAN. Upon what theory do you say that?

Mr. Foss. Upon the theory that the street railroad is a necessity, an absolute necessity to our social and industrial life, and as such he should be taxed to maintain that necessity just as much as he is taxed to maintain that highway without the street railroad on it.

The CHAIRMAN. Would you apply the same principle in the operation of a lighting company?

Mr. Foss. Yes.

The CHAIRMAN. Or a water company?

Mr. Foss. Yes.

The CHAIRMAN. Or a gas company?

Mr. Foss. Yes; the same thing.

The CHAIRMAN. So then you would wish the city generally to maintain a service which is of a peculiar benefit to the citizens of a city?

Mr. Foss. Yes, that is right where these quasi-public corporations have got to be.

The CHAIRMAN. What is the length and breadth of Massachusetts?

Mr. Foss. Well, it is about 225 miles long, I think, and about—

Mr. WARREN. Fifty miles wide, is it not?

Mr. Foss. Fifty miles wide?

The CHAIRMAN. Apply that same principle to the State of Minnesota, where I come from, where the State is over 400 miles long and over 200 miles wide.

Mr. Foss. As big as all New England.

The CHAIRMAN. Yes. We have counties in our State that are larger than some of your Eastern States.

Mr. Foss. Yes.

The CHAIRMAN. Now in that State the street-cars are operated in Minneapolis, St. Paul, and in Duluth. It so happens that the Twin Cities are located, and Duluth also, all the way from 200 to 300 miles from some of the largest agricultural and mining communi-

ties in our State. Large numbers of people never ride upon those street-cars. Is it fair to ask the farmer of Minnesota and the miner up in northern Minnesota and the stock raisers generally all over that country for a service that is a peculiar benefit to the citizens of St. Paul, Minneapolis, and Duluth?

Mr. FOSS. I am not going to say—I do not understand your whole system of taxation, but if your system of maintaining highways is that you tax the whole people of the State to maintain them—for instance, you tax the people of Minneapolis and St. Paul to maintain the highways in the southern part of Minnesota—why should not the people be taxed—

The CHAIRMAN. We have what we call a 1-mill tax. The State raises 1 mill by general taxation and that is distributed upon some ratable basis to all of the counties in the State.

Mr. FOSS. Well, we are trying to get that same system in Massachusetts, which is a very good system, I think. Now, I honestly think if you tax the people of southern Minnesota to maintain the streets of St. Paul and Minneapolis, then it is no more than right to tax the people of southern Minnesota to maintain those street railroads.

Mr. WARREN. If you followed up in Massachusetts that analogy, you would not have to tax the whole State.

Mr. FOSS. No; I do not think you would.

Mr. WARREN. We tax the cities and towns for local highways, the counties for intertown highways and the State for State highways.

Mr. FOSS. Yes.

Mr. WARREN. In Boston you have your metropolitan district.

Mr. FOSS. In Boston we have our metropolitan district to take care of it. My idea is to take the metropolitan district of Boston which these railroads serve.

Mr. WARREN. You spoke of the water system there. The same method of taxation and operation applies to the sewer system?

Mr. FOSS. Yes; and it has worked out well.

Mr. WARREN. But you do not tax the western part of the State for the metropolitan region?

Mr. FOSS. No; only that region through there.

Commissioner GADSDEN. The condition of electric railways throughout the country is admittedly very bad, is it not?

Mr. FOSS. Yes, very bad.

Commissioner GADSDEN. Pending the working out of a comprehensive plan such as you advise, do you not think in all justice and fairness to the companies that there should be an immediate increase of their rates of fare?

Mr. FOSS. No; I am not sure that there should be. I do not think that. We have to meet the situation, of course, in some way as quickly as possible. I say just go to it as quickly as possible. It may be necessary in some cases to do that temporarily.

Commissioner GADSDEN. I am not talking about your roads in Massachusetts—

Mr. FOSS. We have done it in Massachusetts.

Commissioner GADSDEN. Throughout the country there are a great many roads who have had no relief at all.

Mr. FOSS. No.

Commissioner GADSDEN. I say pending the eventual working out of this problem, do you not think that those roads which have not had any relief should be relieved at once?

Mr. Foss. They should be, but the people should be told that it is only temporary, and if you tell them the whole truth and do not go to make it permanent instead of temporary—

Commissioner GADSDEN. I mean as an expedient.

Mr. Foss. That is right, if you make it purely temporary, yes; but if you are going to make that temporary business permanent, then you are up against it, because that is only half the truth.

Commissioner GADSDEN. Don't you think this commission would be well advised if it should take the position that, pending this further investigation of this subject and a permanent solution of the problem, it should recommend to the American people that some relief should be given to this transportation system to keep it alive until you can remedy it?

Mr. Foss. Yes; if you say public ownership is the thing and we are going to write about it and recommend it, then I say yes. But if you wait until the next 60 days or 90 days we will have a higher fare, but at the end of 60 or 90 days we will have it changed.

Commissioner GADSDEN. Suppose the American people are not prepared for Government ownership—

Mr. Foss. They are.

Commissioner GADSDEN. Well, you may be mistaken.

Mr. Foss. I believe they are. I do not believe they are prepared for anything else.

Commissioner GADSDEN. A good many of us who have been riding on the steam railroads during the war have heard a great many people express the opinion that if that is an example of governmental ownership we do not want anything more of it.

Mr. Foss. My dear sir, we have not had any yet.

Commissioner GADSDEN. The people think it is Government ownership.

Mr. Foss. They ought to be disabused.

Commissioner GADSDEN. How long will it take them to be disabused?

Mr. Foss. You have to tell them they have not had it. They have had a lease of the roads and the same crowd is managing them as managed them before the Government took them over.

Commissioner GADSDEN. But don't you think governmental ownership in the public mind has had a set-back from the experience of the war?

Mr. Foss. This propaganda which has been put forward by the railroads themselves—by Wall Street, if you please, by those vested interests which have got the newspapers and have got the press—that kind of stuff has been going around the country and many people believe we have public ownership in this country and that we have tried it out and it is a failure. We have not had it; there is no failure about it. We are going to have it, and it is going to succeed and we are going to effect wonderful economies of terminal charges and everything of that sort.

The CHAIRMAN. There is one other thought I would like to discuss with you for a moment or two. It is stated there are about \$6,000,000,000 in bonds and money invested in these utilities throughout

the country. It has been freely stated here that a good deal of watered stock has been permitted to be issued to the public and it is now in the hands of innocent purchasers. Do you believe that the net result of Government or municipal ownership of all of these utilities would be that the investor would get his actual money back?

Mr. FOSS. Yes; absolutely, with interest.

The CHAIRMAN. With interest?

Mr. FOSS. Yes. I think he ought to have his actual money back with interest. If there is any watering done, it ought to be squeezed out. You understand a security which is privately owned of a privately owned corporation does not sell nearly as high as a Government security. The last money we got for the Boston Elevated Railroad we had to have a year ago and it was \$3,000,000 that the stockholders put up on a guaranty by the State that they would see the interest paid for 10 years, and we had to pay 7 per cent for it. Now, if the city of Boston had issued that \$3,000,000, what would they have had to pay? Four and a half per cent, possibly, or $4\frac{1}{2}$ for it. The State would have had to pay $4\frac{1}{2}$ or $4\frac{1}{4}$. See the difference in the interest, see what you are going to effect in the cost of these railroads, in the cost of carrying on this property, if you get your money at 4 per cent instead of paying 7 for it. That is what you are going to save. It is going to make a tremendous difference. We can do it over here—

The CHAIRMAN. In reaching your conclusion favoring Government ownership, have you been influenced at all in the belief that that plan would result in paying back to all of the investors the money which they had put into these properties?

Mr. FOSS. Yes; it ought to.

The CHAIRMAN. That is one of the reasons you favor Government ownership?

Mr. FOSS. Yes. Well, I believe that is justice. I do not believe in the confiscation of any man's property. He should be paid back with good liberal interest, and the public are willing to do it. The public do not stand on that. They are in favor of every man getting his money back, but not a fictitious price or water.

The CHAIRMAN. Do you believe if we should attempt to buy all these properties at the same time that it might result in the people paying a great deal more for these properties than actually was put into them and thereby capitalizing a good deal of water that is in the stock?

Mr. FOSS. No; I think that could all be fairly found out. I think an investigation, a commission to find out what these properties were severally worth, what had been put into them and to see that nobody was harmed in any way—an exchange of securities could be effected for a Government security. Of course, a Government security at par would offset, you see—at par it would be worth 130 or 150, possibly.

The CHAIRMAN. But in all these cases the property should be duly valued by some State tribunal?

Mr. FOSS. Yes.

The CHAIRMAN. According to the settled principles of law?

Mr. FOSS. Yes.

The CHAIRMAN. It ought not to be a purchase and sale proposition?

Mr. FOSS. No; I do not think so at all.

The CHAIRMAN. That method would be just to the public as well as the investor?

Mr. Foss. Yes, but my theory is to very liberally deal with the people. We owe something to the people who put their money into these corporations and developed them; no doubt about that.

The CHAIRMAN. Now then, do you want to apply your principle to all forms of public-service corporations?

Mr. Foss. Yes, all quasi-public corporations.

The CHAIRMAN. The present bonded indebtedness of this country is around \$24,000,000,000—is it not—growing out of the war?

Mr. Foss. Yes.

The CHAIRMAN. Now if we should ask, say \$15,000,000,000 for the steam railroads and \$6,000,000,000 more for the utilities and we will say \$6,000,000,000 more for all of the other utilities, how is all that money to be financed?

Mr. Foss. I do not think it would bust us at all. But we have not got to do that. Your bonded indebtedness on these railroads is all fixed. You do not need to disturb those bonds at all. Now, those can be adjusted so that they will receive a Government guaranty. We have not got to do this thing that way at all. These owners—I speak from knowledge—of these railroads are very willing indeed to turn them over to the Government at a fair and reasonable price, not what they cost—

The CHAIRMAN. Let me give you an illustration of that: The Kansas City Southern Railroad, which operates from Kansas City down to Fort Arthur or the Gulf, has been valued or is being valued by the Interstate Commerce Commission.

Mr. Foss. Yes.

The CHAIRMAN. In that proceeding it is stipulated between the Government and the railroad that the original cost was \$50,000,000. The Interstate Commerce Commission found that the cost of reproduction new less depreciation would be about \$46,000,000. The capitalization of that railroad is \$99,000,000. Now the railroad has been earning very fair returns during the past six or eight years, and the railroad claims that the value of that property based upon the capitalized earnings would be all the way from \$77,000,000 to \$80,000,000. Now with those figures before you and with the thought of being fair to the public as well as to the investor, what should be the value of that railroad property if purchased by the Government?

Mr. Foss. I can not say arbitrarily, but I simply say if that property—they should not receive what they claim on earning value of the property. That may enter, if you please, somewhat into the value of that property, but I think a safe proposition is to say this, that they should pay for that property all it cost plus the interest.

The CHAIRMAN. Well, suppose they had been getting the interest right along, you would not want to compound that interest, would you?

Mr. Foss. I do not know as I would compound it, but I would see that they got an honest and fair return. Of course, these stocks of railroads are manipulated; you understand that.

The CHAIRMAN. Oh, yes.

Mr. Foss. They do not all represent actual value. There are pools in Wall Street that see that certain shares of stock sell at certain times at certain figures and that at other times they sell lower.

The CHAIRMAN. The railroads in these valuation proceedings are contending for a great many different items that will add many, many billions of dollars to the value of their property; increment to land, present value of land which has been donated by the Government, contingencies and overhead expenses and all those things; no one to-day knows just what the Supreme Court will finally say upon the disputed points. Now, those questions do involve billions of dollars. Now, do you think that this country at this time should decide to buy those railroads before any of us know anything about what those railroads are worth?

Mr. Foss. It is not necessary—yes, we should decide to buy them, no doubt about that, and take them right over, and we will determine the value afterwards. But I want to pay them what it is worth. Whether they should be recompensed for increment of value which has come to them through a period of years through the fact that they have occupied them and business has grown up around them is a thing that I do not admit.

By the way, Mr. Prince, a prominent banker in Boston, is here, and he calls my attention to the fact that the public will furnish the money with a Government guaranty. You are speaking about the Government issuing these securities in great quantities and flooding the market with Government securities. That would be unnecessary. And as I said with respect to the bonds, and as Mr. Prince very properly says, the public will furnish the money under a Government guaranty. So we are not going to throw a great quantity of Government bonds onto the market if we take these things over.

The CHAIRMAN. That is all.

(Witness excused.)

(At 1 p. m. a recess was taken until 2 p. m.)

AFTER RECESS.

The hearing was resumed at 2 o'clock p. m.

The CHAIRMAN. You may proceed, Mr. Warren.

Mr. WARREN. Mr. Mortimer, will you take the stand again?

STATEMENT OF MR. JAMES D. MORTIMER (Resumed).

Mr. MORTIMER. The electric-railway industry for a great many years past has been gradually losing its commercial aspects. It has become an industry that is regulated in the extreme by the governmental authorities, and it, of course, has been one where the net earnings have been declining.

It appears that the railway industry has not been increasing its volume of business as rapidly as has been the general business in community life of the territory served. The causes for that are comparatively well known. They have found themselves unable to attract additional capital to expand facilities, to keep the railway utilities in line with the growth of business and expansion of territory, partly because of the imposition of unremunerative expenditures, both for capital and for operating expenses, and partly because the business has been regarded as an exceedingly hazardous one. Expenses have risen so rapidly in the last two years that it is not at all clear that there is any uniform solution for the problem. In fact, as

I indicated in my earlier testimony, there are a great many of the smaller communities served by track mileages running up 10 or 15, or possibly as high as 20, and in placing the population as high as 50,000, where it is doubtful, at present wage levels and commodity prices, that the business can be made remunerative at all.

There are a good many of our fundamental conceptions respecting the railway business that will probably have to be modified. We may have to change from a flat form of fares to a distance-tariff plan. In any event, if we are going to commercialize the business we have to be placed in a position where we can manufacture our product—namely, seat miles—at the lowest possible cost, and then be accorded the necessary freedom so that we can sell those seat-miles to our customers. Just what form the commercial aspect of the sale of our service is going to take is very difficult for any electric-railway operator to state at this time. In fact, the changes in the fundamental economic basis of street-railway operation have been so important in the last two years that it is not improbable that we will have to go through a two-year experimental period. Of course, an experimental period of two years would ruin every electric railway, and present operators would not care what would happen to the railways at the end of the two years. Present conditions are such that emergency relief has to be granted, and we have not conducted the experiments to that fine point to take sufficient time to try to restore it to a commercial basis, if such a restoration is at all possible.

Any business that is of a shrinking nature, where the volume of its market is decreasing, is necessarily not attractive to private investors, and the changes in fare agreements that have been generally made throughout the United States have, of course, produced a very great reaction upon the riding habit.

There has been, in every case, after the lapse of a short period of time, an increase in revenues as the result of an increase in flat rates of fare. That is true. The increase has not in all cases been equal to the estimated increase resulting from the application of the new fare to the previous number of passengers.

All important industrial centers are growing at a rapid rate. The riding habit ought to increase likewise at a rapid rate, but the increase in riding habit has been somewhat influenced by the increases in the flat rate of fare.

Now, what the railway business needs is more business rather than less. If you liken the railway business to a manufacturing institution, with a relatively large overhead, the analysis of the manufacturer would be along the following lines: I have a large overhead. That overhead, distributed over my present volume of output, is too high per unit to permit me to sell in competition with other commodities of like use.

The electric-railway operator is faced with the proposal of increasing his selling price so high that competition from walking becomes most severe. The principal competitor of the electric-railway business is walking. The number of cars to be operated by an electric railway in any given time should, in point of fact, be determined more nearly by the movement of people that are on the street, rather than by the number of people that are on the cars.

So I know, with respect to the companies in which I am interested, that we are anticipating a period of experimental development for

the next two years, but we have got to be granted emergency relief in order that we may have a restoration of earning power, to the end that the proper wages may be paid, that the existing physical property may be adequately maintained, and that we may be placed in a position to invite the additional capital at the end of the two-year period.

Mr. WARREN. Did you refer to the British experience during the war period?

Mr. MORTIMER. No; I said nothing about that.

I recall a series of articles appearing in the Electric Railway Journal that purports to show that under the distance tariff or zone system of fare in operation of most of the British street-railway systems they have been able to increase their revenues to substantial accord with the increase in expenses; that their traffic has not fallen off, except to the extent that they were not able to provide the service because of the shortage of operators; that while there were a large number of men who went into the service, there were likewise large numbers of women who took their places, and women ride to a greater extent than do men; that the increases in revenues on all the British tramways where they endeavored to keep the revenues in accord with the increase in expenses have been satisfactory; that there has been no decrease in riding habit or traffic as the result of their increase in fares, except to the extent that the shortage of operators prevented them from running prewar service.

Mr. WARREN. I think that is all I want to ask Mr. Mortimer, Mr. Chairman.

Commissioner MEEKER. I would like to get your idea about the proper way of accounting. You mentioned some things that are rather obscure to me. Will you state a little more completely your idea of how depreciation should be cared for and how obsolescence should be cared for?

Mr. MORTIMER. The purpose of accumulating a reserve for so-called depreciation is fundamentally to create a reserve out of earnings so as to insure the future replacement of the element of physical property at the end of its probable lifetime. No elements of physical property of the same class have all equalized. The lives of cedar trolley poles may vary from 8 to 20 years. There are, of course, as the statisticians know, one certain year in each class of property where the number of replacements is at a maximum. Replacements or abandonments invariably begin within a very short time after the initial construction takes place. The curve of mortality of the elements of physical property, to the extent that such mortality curves have been computed or arranged, are quite similar to the curves of mortality of human lives. The problem of providing for so-called depreciation is not to provide for the wearing out, so much as it is to provide for the replacement. I am speaking now from the utility standpoint. Every utility is presumed to operate in perpetuity. Its obligations to operate and conserve its capital account do not necessarily terminate at the expiration of its determinate franchise, if it has such a thing. No rates of fare have ever been allowed which will amortize the value of physical property to its scrap value within the life of the determinate franchise. All the rates of fare provided for in any plan never make an allowance in amount greater than what will insure the replacement of the elements of physical property at the end of their probable lifetime.

Now, we have a piece of track which, for simplicity in calculations, we will assume has a life of 15 years. It is the duty of the utility to appropriate a sufficient amount of money out of its earnings with which, with equal increments, if you please, each year, together with the interest upon the reserve balances, will provide a sum at the end of 15 years which will enable the utility to replace that element of property—a piece of track—to the extent of the original cost thereof.

Now, that will apparently result in the creation on the balance sheet of the corporation of a liability very much larger than the amount that the corporation can use in any one year, but the recognition of that liability is essential if the balance sheet of the corporation is to fairly show the assets and liabilities, because the balance sheet purports to represent fundamentally the liability of the corporation as a group of shareholders to the various creditors and the public, to the extent that the public is interested in the continued operation of the utility. By that I mean that the depreciation or replacement reserve created by the methods that I have generally indicated records the liability of the corporation to the utility to effect these replacements at the end of the probable lifetime of the physical property.

Commissioner MEEKER. Suppose, in this case that you cite, that some exigency should arise whereby it was necessary to replace a piece of track at the end of 5 years instead of at the end of 15 years, with absolutely new track that would cost, perhaps, twice as much as the original track cost. Or you could take a more specific example—

Mr. MORTIMER. I will take that example. That is sufficiently specific, and the question which you ask, Mr. Commissioner, consists of two parts: One, how are we going to treat life that corresponds to the remaining 10 years normally, the difference between the probable life of 15 years and the actual life of 5 years; and the other question is, how shall we treat increased capital cost?

When the property is abandoned, the original cost should be removed from the capital account. If it were 1 mile of track and cost \$25,000, we would take \$25,000 out of capital account, crediting capital account with that amount, and debiting the replacement reserve with a corresponding amount, provided we are going along on the assumption that our depreciation reserve has been credited with a sufficient reservation to take into account the varying lives that equipment and physical property are subject to.

Now, the rule of the Interstate Commerce Commission for accounting of that class requires that an amount be debited to depreciation reserve equal to the proportion that the expired life bears to the probable life; in other words, one-third; and that the remaining two-thirds will be charged into ordinary current operating expenses of the railway. Whether it would be in one month or six months is a matter that is left, as a rule, to the discretion of the operating officers. If it is not charged to depreciation reserve and is to be charged into operating expenses during a period of six months, it is carried as a suspended asset and written off in equal monthly installments.

Commissioner MEEKER. And if earnings are not sufficient to take care of it within six months, you still further suspend it?

Mr. MORTIMER. That is a matter of discretion. Now, if you were to ask me what our practice is, I would say that only the amount that corresponds to the expired life is charged against the depreciation reserve, and the remaining amount is charged to operating expenses for the month in which the order for property removal comes through into the accounting department.

That was the practice and recommendation of the Railroad Commission of Wisconsin prior to 1915 or thereabouts. With a changing personnel, they changed the basis, and were thereby able to make a reduction in maintenance expenses, requiring, according to their calculations, that these unexpired lives of elements of physical property should all be charged to depreciation reserve.

In other words, in the case that you cite, the entire original cost of the item of physical property—namely, the mile of track—should be debited to depreciation reserve at the same time that the property account is credited with its original cost.

Now, taking up the question of how the additional expenditure is to be taken care of, it is this: We have taken out of the plant and property account the original cost of the element of property that has been abandoned. We should accordingly write on, that is, into property account, the cost of the property that has been constructed. The costs of the removal of the old property should be charged to operating expenses.

Commissioner MEEKER. What percentage of earnings should be set aside, do you think, in order to take care properly of replacements?

Mr. MORTIMER. I am unable to answer that question for the future, because the levels are, of course, changing. Operating ratios are on an entirely different basis from what they formerly were, but more particularly the ratio of capital, utility capital, to operating revenues, is changed, due to rise in rates of fare.

We have, by the practical setting up of 22 per cent of the operating revenues of the urban and suburban system, been able to accumulate, in the case of the Milwaukee Electric Railway & Light Co., a replacement reserve approximately equal to the estimated accrued depreciation, or the difference between reproduction cost net and so-called depreciated value; so that, so far as utility capital accounts are concerned, the utility has been maintained intact; and we have, as a rule, carried through that practice, irrespective of the return we were actually earning on this utility. We have shaded it in some years. That is, in the last year we did so, when it was necessary to show a sufficient margin over bond interest.

Commissioner MEEKER. Have the street railways under your direction ever been solvent on a 5-cent fare?

Mr. MORTIMER. We have never had a straight 5-cent fare on any of our electric railways at a time that they were solvent. They always had to get insolvent—the utility had to become insolvent before it could get a 5-cent fare.

Mr. WARREN. You are speaking of the Milwaukee company?

Mr. MORTIMER. I am speaking of the Milwaukee company. Kenosha had a 5-cent fare, and the advent of the 5-cent fare did not restore the solvency of the utility, if we recognize the liability that the utility has because of the unpaid return, the unpaid reasonable return.

Commissioner MEEKER. Could they have operated solvently if they had started anew on a 5-cent fare?

Mr. MORTIMER. No; they could not have.

Commissioner MEEKER. This proper reserve fund—depreciation and replacement fund, and all of the other elements—if taken care of, would not enable the railways to operate on a solvent basis with a 5-cent fare?

Mr. MORTIMER. No; not during the period of time that we have under review.

Commissioner MEEKER. How far back would that extend?

Mr. MORTIMER. Well, I am going back to 1896. On the Milwaukee Electric Railway & Light Co. there were periods of time when the return earned upon the fair measure of the utility capital, after providing for depreciation, was 7 or 8 per cent possibly; but that was in times before we had a regulation of rates by a regulating commission.

Commissioner MEEKER. But since the regulation of rates, the 5-cent fare has never been a sufficient fare?

Mr. MORTIMER. Well, if we had had a 5-cent fare in 1913 and 1914, it would probably have been remunerative; but, of course, that assumes a static condition with respect to the other factors of operating expenses; and with an increase in rate of fare, there would probably have been a synchronous increase in certain other items of operating expense, possibly wages, etc. It would certainly have increased our taxes, because combined railway and electric utilities in Wisconsin are virtually on an income-tax basis.

The Milwaukee Electric Railway & Light Co., as a corporation, has, of course, been solvent. It enjoys a favorable reputation in that respect, but that has not been due to the railway business. Its electric business has been rapidly developed, and is growing at a very rapid rate. It has tended to assist the railway business very materially, because it is taking over portions of the reserve power station facilities and absorbing them by absorbing their output and thus reducing the rate of increase of capital expenditures in the case of the railway.

Commissioner MEEKER. What would you say in answer to the accusation that the street railways have been addicted to issuing watered stock and that they have been trying to pay dividends upon water?

Mr. MORTIMER. I would say, in the first place, speaking generally, it is an attack that is made primarily for the purpose of confusing the issues. The figures that I have presented to you applicable to the Milwaukee Electric Railway & Light Co. have no bearing whatever with respect to capital stock and bonded debt, but represent only the appraised value of the physical property; and if any one of such persons to whom you refer should say that the system can be satisfactorily operated and produce an 8 per cent return, a reasonable return upon the fair measure of utility capital, whereas we are able only to operate it at a 2 or 3 per cent return on the present rate of fare, then I should tell him he is losing his time, that he should be in the street railway business, and I have a job for him.

Commissioner MEEKER. Has any part of the value of the plant been paid for out of earnings?

Mr. MORTIMER. There have been substantial additions to the plant and property account through reinvestment of depreciation reserve, through reinvestment of earnings specifically appropriated for that purpose; but the amount that the company has earned over and above a reasonable return has been negligible.

Commissioner MEEKER. Even including these amounts turned back into plant, the returns on a fair valuation have been modest?

Mr. MORTIMER. They have been low; in fact, and of course, relatively low during the last two or three years.

Commissioner MEEKER. I think that is all.

Commissioner SWEET. Did you finish what you had to say about Kenosha? As I recollect it, you said this morning that you got a change in the law, which made a different provision for third-class cities.

Mr. MORTIMER. Yes.

Commissioner SWEET. Enabling you to do certain things there, but not including Milwaukee and Superior?

Mr. MORTIMER. That is correct.

The CHAIRMAN. Did you take advantage of that new law in Kenosha?

Mr. MORTIMER. Well, we now have in process of preparation a contract to submit to the officials of the city of Kenosha, under which we propose to give them additional railway facilities.

Commissioner SWEET. Does that involve an increase of fares?

Mr. MORTIMER. This does not involve any increase in fares as a part of the contract, but it will require that the rate of fare shall be determined by the company and shall be in such form as will produce the maximum net earning power for the street-railway utility has expanded. We will, of course, have to secure the approval of this contract by the railroad commission and assurance from the railroad commission that they will accept our filings of the rates of fare.

Commissioner SWEET. Is the Kenosha account kept entirely separate from other accounts?

Mr. MORTIMER. Yes; from the Milwaukee Electric Railway & Light Co., and the other utilities of the Wisconsin Gas & Electric Co.

Commissioner SWEET. Do the Kenosha accounts include any suburban districts?

Mr. MORTIMER. None whatever. The service is confined wholly within the city limits of the city of Kenosha.

Commissioner SWEET. You have been charging a 5-cent fare?

Mr. MORTIMER. Yes; we have had a 5-cent fare, and the return on this very high earning per car-mile has been on the order of 3 per cent per annum. In other words, we had at the rate of about 6 per cent for allowances for future replacements and for return, and that, in turn, is referring to the actual bare bones of the physical property value.

Commissioner SWEET. And you divided that amount in two, in the middle, and devote half of it to returns upon the investment and the other half to replacements?

Mr. MORTIMER. In that particular case, I do not recall how the distribution was made. It is my recollection that there was not appropriated for depreciation an amount equivalent to 3 per cent. I

think it was appreciably under 2 per cent. So that our return actually shown during the last, say 10 months, was at the rate of 4 per cent, the return as per books, whereas, on computing the return upon the commission's formula, it would be on the order of 3 per cent.

Commissioner SWEET. How did the valuation upon the basis of the physical property compare with the issues of bonds and stocks in the book charges?

Mr. MORTIMER. Well, in the case of the Milwaukee Electric Railway & Light Co. and the Milwaukee Light & Traction Co., the reproduction costs of the physical property was \$2,000,000 in excess—the reproduction cost of the physical property, plus materials and supplies, plus working capital, like accounts receivable, cash, etc., was on the order of \$2,000,000 in excess of the par value of the preferred and common capital stock, plus the present value of the liability on account of funded debt; and when I say “the present value of the liability on account of funded debt,” I mean the par value of the funded debt and securities, less the unamortized portion of the discount at which they were sold.

So there was a straight case where, on the face of it, there was no water in its securities, as compared with the reproduction cost of the property and assets.

Commissioner SWEET. Had common stock been issued?

Mr. MORTIMER. Yes.

Commissioner SWEET. What became of that?

Mr. MORTIMER. I am counting that. That is included in the par value of the preferred and common stock. We found in our properties there that it was absolutely impossible to make any reference to the security issues, because they have gone back over a very long period of time, and the Railroad Commission in its early stages substituted physical valuation for any attempt at stock valuation or security valuation.

Commissioner SWEET. Was there any value attached to your franchise?

Mr. MORTIMER. We have no allowance for franchise value whatever, and no allowance in these valuations for superseded property of any kind.

Commissioner SWEET. Did you have a dispute with the State commission in regard to the basis of valuation?

Mr. MORTIMER. We were not satisfied with the valuation that was made as of 1907, but we were fairly well satisfied with the valuation made as of January 1, 1914; so the dispute was not so serious between us that we have hesitated to use the figures. In fact, we have accepted them for the purpose of rate-making.

Commissioner SWEET. Was there a basic difference between those two valuations, or simply a difference of opinion as to what the values were?

Mr. MORTIMER. No; there was no difference between us as to the quantity of property. There was some difference, to begin with, between our engineers and the commission's engineers respecting unit prices, and there was also some difference with respect to some amount to be allowed as overhead, but the differences were largely minimized.

Commissioner SWEET. The last valuation was of 1914?

Mr. MORTIMER. January 1, 1914, made as of that date, and begun in the early part of that year, and completed as of January 1, 1914, in the month of August, 1917.

Commissioner SWEET. That was before prices had begun to go up very much?

Mr. MORTIMER. Yes.

Commissioner SWEET. Suppose you were to take a valuation of the railway property now; do you think that the reproduction cost, the cost of reproducing, upon the present high prices of steel and equipment of all kinds, ought to be taken into account?

Mr. MORTIMER. I think that is an element that would have to be given consideration, just like the estimated cost of reproduction is only one element in valuation. We have not needed in any of our calculations to show that regulation as practiced in Wisconsin was unreasonable.

Commissioner SWEET. I do not know whether you have expressed the opinion that your maximum revenue would be reached by an increase of fare; in other words, whether the patronage would fall off as your fares advanced, so that you could not get much more revenue than you are getting now.

Mr. MORTIMER. I feel almost sure that almost any change in rate of fare upward would increase revenues. I am confident of that.

Commissioner SWEET. The falling off in revenue would not equalize the gain in fare?

Mr. MORTIMER. No; I am very sure of that.

Commissioner SWEET. You think the increase in fares would be, at present, at least, very helpful to the companies throughout the country?

Mr. MORTIMER. There can be no doubt about it.

Commissioner SWEET. Do you see any other means of awarding immediate relief?

Mr. MORTIMER. Well, as emergency measures, it would be highly advantageous to the railway industry if, first, the unremunerative capital and operating expenditures could be eliminated. I refer primarily to paving and the other contributions which street-railway utilities indirectly make to taxes, sprinkling, etc.

The second thing is to abandon the operation of the service over lines which can not be made remunerative, or which can not otherwise be supported.

The third would be to impose a distance-tariff plan on the outlying sections of long lines or lines of modest length, so as to increase the revenues and minimize the losses; and the fourth thing would be an immediate and large increase in the flat rate of fare. An immediate and large increase in the flat rate of fare is essential, for two reasons: First, it is necessary in order to restore equality between operating revenues and operating expenses; and second, it is important that a large increase in fare be allowed to take care of increased expenses that the street railways will meet in the next few months, because of rate increases and probably coal costs, and to return the net earning power of the railways to a relatively high level, so that their credit at the end of two years may be reestablished and that they may be able to go into the money markets and procure the additional capital that will be needed at that time.

The CHAIRMAN. You are excused, Mr. Mortimer.

Mr. WARREN. Mr. Quackenbush.

STATEMENT OF MR. JAMES L. QUACKENBUSH.

MR. WARREN. Mr. Chairman, I am calling Mr. Quackenbush with reference to his experience with public supervision and control in New York State and New York City.

MR. QUACKENBUSH. You are a lawyer by profession?

MR. QUACKENBUSH. Yes, sir.

MR. WARREN. You are counsel for the Interborough Rapid Transit Co.?

MR. QUACKENBUSH. Yes, sir.

MR. WARREN. And also for the New York Railways Co.?

MR. QUACKENBUSH. Yes, sir.

MR. WARREN. How long have you been connected with the companies professionally?

MR. QUACKENBUSH. Fifteen years.

MR. WARREN. That is about as long as you have had a public-service commission in New York?

MR. QUACKENBUSH. Longer.

MR. WARREN. Longer?

MR. QUACKENBUSH. We have had it 12 years.

MR. WARREN. You have two commissions there, one the so-called up-State commission, and the one with particular control in New York City and the immediate vicinity, I believe?

MR. QUACKENBUSH. Just New York City.

MR. WARREN. Have you had experience with both commissions?

MR. QUACKENBUSH. A slight experience with the up-State commission, and a very large experience with the city commission.

MR. WARREN. Will you please tell us what changes are necessary, in your opinion, Mr. Quackenbush, in the commission laws or practices to make them more effective and more efficient in the present situation of the street railways and properly to control in the future the street railways? In that, I include, of course, the railways operating the subways and the elevated?

MR. QUACKENBUSH. Fundamentally, I think the laws of New York are satisfactory. The trouble in New York has not been with the law, but with its administration.

The first time that anything has been done by the public-service commission in the first district, which is the New York City district, of the slightest benefit to the railroads, was done last week by Commissioner Nixon. Since the 1st day of July, 1907, down to the 1st day of July, 1919, I have been in daily contact with the administration of the public-service commission in the first district, and I can not now recollect a single transaction that has been of the slightest benefit to the railroads under their jurisdiction.

Now, the trouble has been that, instead of the members of the commissions carrying out the theory of Gov. Hughes in the session of 1907, when the public-service commission law was first enacted, namely, that the commission would be a tribunal, impartial and fair, between the industry and the public; that it would be a means of the prevention of any further prejudice against the industry on the part of the public; that it would ascertain the truth and tell the people the truth; that the people, learning the truth, would be edu-

cated up to carrying out what is always the desire of the people—to do justice—that function completely and absolutely failed.

Now, that you do not need to take my statement about it—and I might be supposed to be a prejudiced witness—I call your attention to the fact that there has been no question of politics entering into the matter. During the 12 years beginning with Gov. Hughes, the majority of the commission was of his party, the Republican Party. Political changes in the State of New York succeeding his administration resulted in the majority of the commission, for a period of years, being of the Democratic Party. Then it swung again to the Republican Party; and this present year, with a Republican legislature and Democratic governor in the State, it was agreed that something had to be done. So they both agreed on the enactment of a law, which practically legislated out of office the remaining commissions and legislated into office a single commissioner, Mr. Louis F. Nixon, and took from the public-service commission the duties of supervising the reconstruction work of the subways, in which the city is financially interested, and all the contracts between the Interborough Rapid Transit Co. and the city on the one hand, and the Brooklyn Rapid Transit Co. and its subsidiary companies, and the city, on the other side of the river. The changes in the law were practically all that I have stated.

The public-service committee of the New York Senate three years ago carried on an investigation of the whole matter of trac-tions, of public utilities. That investigation began four years ago; it began in 1915, and ran through 1916, and continued through 1917 and 1918. It consumed months of time. I attended the senate committee. It was a joint committee. I was mistaken in saying it was a senate committee. The chairman was a senator. It was a joint committee of both houses.

The law was completely revised. The substantive portions of the law remained unchanged, but the procedural part was changed. I will not go into that now, because I think whether it was as it was proposed by the so-called Thompson Law, or as at present, is of no consequence to the problem confronting you at the present moment.

The bill passed the senate two years. It did not pass in the assembly. I think it is fair to say from that that my conclusion that the law itself is satisfactory is warranted.

The main change suggested was to get quicker action by the commission, and if you care to know about that, I might spend a moment in explaining it. The idea was to get rid of the practice that the commission had fallen into of failing to recognize that it was an administrative body, instead of treating everything as though it were a court, with long-drawn-out examinations and cross-examinations and the usual number of adjournments and postponements, and to have matters heard, in the first instance, by so-called regulatory commissions, who would decide the ordinary routine matters promptly and provide then for a hearing commission. The idea was to abolish the two separate commissions, and to have one commission, the hearing commissioners to sit in Albany and take up matters that might be referred to them by the regulatory commissioners, or that might be brought to them in an appeal from the utility, with a further provision that decisions could be summarily reviewed by

the appellate division in the third department sitting in Albany, and not go to the court of appeals except on a certified question of law of the highest importance.

I believe that that bill, which already passed the senate on two occasions, would make for celerity; but, so far as we are concerned—and by “we,” I mean the companies operating largely on Manhattan Island—we could get along with the existing law if we could get it administered in the manner that was first intended.

In other words, it has been a failure on the part of individuals to recognize that they were there as protectors of the people who had their investments there. I go further than that: I say that the public-service-commission regulation in New York City failed because it did not courageously put a stop to the prejudice that was shown by the former governor of Massachusetts here this morning.

Now, I challenge, so far as it relates to the city of New York, the accuracy of every statement made by that gentleman. There is no warrant for it, and yet it exists, and it exists solely and only because those men who were in a position all those years to know the truth and did know the truth kept the truth to themselves and did not convey it to the public whom they represented.

From the time that the commission took office, on July 1, 1907, down to this act of Commissioner Nixon, the whole problem was to control the outgo of utilities, and no heed or regard was paid to their income whatever. Notwithstanding that the surface lines of the New York Railways Co. were going down hill, were going fast toward a receivership last year; notwithstanding that we warned them of it, advised them of it, that our monthly reports, quarterly reports, annual reports, frequent hearings under oath showed the fact, they continued to make orders to increase service. They took the view, and both commissions took the view that they were not concerned with the question of how we were going to get the money to provide the service—and when I said awhile ago that I was slightly familiar with the operation of the so-called up-State commission I meant by actual appearance before them, although I represent two roads that are within their jurisdiction; but I do know about their operations, because it is my business to watch the operations of both commissions.

That commission in Buffalo last year, when the men struck for higher wages, took the position that they must go on. The lower court also took that position, but the court of appeals, with some sanity, said no, that they could not operate without income, and if it was a fact that they did not have income sufficient to pay the wage of the War Labor Board that that was a question of fact to be tried out.

I think it is only fair to say that the commission in the Albany district has shown a greater disposition to function in accordance with the fundamentals than the one in New York City.

Now, the New York City Commission took office in July, 1907, when the surface lines were tottering toward bankruptcy and became bankrupt in September. They were getting an inadequate fare there at that time through excessive use of free transfers. The average fare had been descending until at the time of the insolvency in September, 1907, it was roughly 3.5 cents.

The receivers of the New York City Railway Co., which then operated all the lines on Manhattan Island, found the leases of the Third

Avenue and many of the others unprofitable and returned them to their owners, under the instructions of the United States court. That meant that the duty to exchange transfers ceased, because the law of New York did not require transfers from otherwise independent and competing lines.

The public-service commission knew what the rate of fare was, but the public-service commissioners made speeches in various portions of the city announcing that they would restore the transfers; and during the years 1907, 1908, 1909, 1910, and 1911 we were engaged in efforts to persuade them not to do that.

The matter went along——

THE CHAIRMAN. To do what—to make speeches or to restore the transfers?

MR. QUACKENBUSH. Oh, no. I tried in my humble way to reason with them as brethren not to make the speeches, but that was unavailing, and so I resorted to the courts and succeeded in getting the courts to prevent their carrying out their nefarious purpose of restoring the transfers; and being unwilling to leave their record to be determined by the courts finally, and wanting to get quick action, these gentlemen went to the legislature in 1912 and succeeded in securing the passage through both houses of the legislature of a bill which enacted into law, in extenso, their order for the restoration of the transfers.

MR. WARREN. You mean the restoration between the——

MR. QUACKENBUSH. Between the independent foreign lines that had been separated.

They knew, of course, as I knew, that the order could not be sustained, because it was confiscatory, and instead of leaving it as a judicial question, it was sought to make it a legislative one. Former Gov. John A. Dix vetoed that bill.

Then, in the latter part of 1912, the independent companies and the commission arranged a modification of the transfer free across Fifty-ninth Street; and they waived the others, and that is the situation down to the present time.

Now, I mention that as proof of the correctness of my indictment. They knew better. They knew that they were not protecting the property or the service in doing that.

Now, let us pass that and come to the last few years. It was apparent in 1917, early in 1917, as soon as we got into the war—it was apparent before we got into the war, that we were going onto a new price level. It was perfectly apparent that the 5-cent fare, with free transfers on the surface lines, would be inadequate to keep them going. I am not talking now about return. I am talking about keeping them going in the interest of the public, keeping the equipment up, so that it could render that safe and adequate service that the statute requires; and transfers having been the principal cause of the lowering of the average rate of fare—rather than to ask for a flat increase of fare in the first instance, the surface companies made application to the commission, in May, 1917, for the privilege of abandoning the transfers, as the commission might direct.

We had procured changes in the law, I might say, parenthetically, in 1910, which left the whole matter with the commission.

MR. WARREN. The whole matter of transfers?

Mr. QUACKENBUSH. Of transfers—either to abolish them entirely, or to limit their use, also in the matter of transfers upon transfers; in other words, to deal with the whole subject.

Those proceedings were begun in May, 1917, and when Commissioner Nixon took office on the 8th day of May, 1919, he found them pending undecided. In the meantime, the New York Railways Co. had gone into the hands of a receiver.

The Second Avenue Railway Co. in New York has never come out of the hands of a receiver since it started there in 1907. And now the receiver is unable to earn interest on the certificates issued by him under the orders of the court, and, rather facetiously, he is considering whether there won't be a receivership of the receiver. [Laughter.]

Now, that condition confronting that particular line of railway on Second Avenue alone condemns the action of the gentlemen that held those positions during those years.

Now, there is another thing: A number of public-spirited gentlemen in Brooklyn conceived the idea that it would be a good thing to have a 3-cent fare in New York City, and so they organized a corporation to operate the cars on the Manhattan Bridge, and they called it the Manhattan Three-Cent Fare Line. We opposed it, naturally. We opposed it because it was economically unsound, and everybody knew that it was. But they were received with open arms, and they got their franchise, a short haul across the bridge.

Across the Williamsburg Bridge in 1904, an arrangement was made for a ten-years' term to operate, a number of the companies entering into the thing jointly. They organized the so-called Bridge Operating Co. and agreed to operate for a 3-cent fare. Just as soon as it became apparent that that 3-cent fare for the short haul across the bridge was earning a little more than an ordinary rate upon the low capitalization of the line, being entirely an instrumentality for joint operations of several lines, the public-service commission reduced that rate to 2 cents, ignoring entirely the fact of the long haul of the lines feeding into the short-haul line.

In 1917, when the transfer hearing was started, it was only necessary to show the difference between operating expenses and income to show that some emergency relief was needed. The facts were there, but they wanted a valuation; and the thing went along—examination upon examination of the accounts, and all the various things.

Counsel for the commission was nominated for district attorney that fall and, among the reasons that he gave the people why he should be elected district attorney, was that he had prevented the abolition of the transfers, or any charge for the transfers. He did not get elected on that issue, but he ran on it.

I am speaking of facts as they are, because I suppose that is what you want to know. These gentlemen are all friends of mine. I have gotten along with them pleasantly. I do not enjoy stating what I do; but the truth is the truth, and it was about time it should be told somewhere by somebody, and I propose to tell it as long as you want to listen to it.

Now, I say that for the commission, for one day, to keep Judge Ransom in office after he made that a campaign issue—and it is in the public prints that he did it—they convicted themselves of an utter lack of appreciation of their duties under the law.

That has been the trouble in New York.

Now, that is the surface situation. Let us take up now the Interborough Rapid Transit Co., operating the elevated lines and subways.

The only rapid transit available to the people of New York, Manhattan Island and the Bronx was the Manhattan Elevated, and this had become utterly inadequate to meet the terrific congestion of traffic afforded to it. For years the matter was discussed in New York as to what relief should be given to the public. The rapid-transit act was amended. Efforts were made to get subways built, and franchises for 20 years were prepared.

The legislature is to blame now. There was not any commission at the time I am speaking of.

They could not find anybody, of course, that could go into the investment of the millions upon millions required to construct and operate subways on any 20-year franchise, or 25 years—I do not recall just exactly which, but I think it was a 20-year arrangement—because you could not amortize any such investment in that time.

That remained the law for some time.

The franchise was peddled upon the steps of the city hall, and no takers.

Finally the law was changed, and a number of gentlemen organized the Interborough Rapid Transit Co. and took the chance of equipping and operating it. The city put its own money in, because, of course, that was the economic thing to do, for the reason that Gov. Foss mentioned here this morning—public credit is always cheaper than that of private corporations. And the city then had credit, the company agreeing to pay the interest and sinking fund on the investment of the city.

The subway began operation in the fall of 1904. It was not very long before it was apparent that extensions must be had. By the way, I might say—and you probably know it, or probably I know you all do know—that the original subway was a Z-shaped line. It came up the eastern side of the city to the Grand Central, went westerly across Forty-second Street, until it met Broadway, and then went on up Broadway on the westerly side of the city. That was laid out that way not because it was considered the scientific way to lay out a railway, but because the limitations of the city's credit were such that the city could not at the time finance a line up and down the east side of the island, and up and down the west side. They laid it out that way with the idea that, as soon as we got going, naturally the extensions up the east side would be built and the extensions down the west side would be built, and would be financed out of the earnings and the established credit of the city, from the original plan.

As I was saying, after 1904 it became apparent that they had to build those extensions. The congestion was increasing. It was paying. Nothing was done by the old Board of Rapid Transit Commissioners, who had charge of it prior to the 1st of July, 1907—nothing of any great consequence. I do not mean this to be as criticism of them, because the period from 1904 to 1907 was the period of the up-building of the subway; but by 1907 it had become apparent that something had got to be done.

Now, what was done by the commission, of which Mr. Wilcox was chairman in 1907 and succeeding years?

The fundamental theory of the public-service commission law in New York, and of course throughout the United States is, as Gov. Foss has said, monopoly—not competition, but regulation and monopoly. It was the commission's duty to regulate it. It had all the powers of regulation.

Instead of undertaking to accept any one of the several offers that the Interborough Rapid Transit Co. made to the city to build those natural extensions that I have mentioned, with their own money, the commission thought they had to have competition, they had to have public operation; and they proceeded with a plan of building an independent subway, and that was to have another Z, coming down Lexington Avenue and crossing below Forty-second Street, and then coming down the west side. They called that the Triborough Subway, and they spent several million dollars in actually constructing it. That has no justification in finance, economics, railroading, or common sense.

It was not the fault of the law.

Tenders were requested from people to build these lines in competing with us, and they did not succeed in getting them.

The next thing was the encouragement of the Brooklyn Rapid Transit Co. to come in, and they laid out this so-called dual system, which is now in process of completion, and they had so many railways in Manhattan Island, as a result of that, that of course it was impossible for any of them to be sure of earning the fixed charges during the first few years of operation; and that was recognized.

Now the city's credit in the meantime had become so narrow that it could not build these things. It had to have private capital. The private capital could not be gotten on any plan that was so sure to result in thin traffic in the first years, and therefore these present contracts were prepared, and if you will pardon me, I will dwell a moment on those contracts, because I think concerning them the truth has not permeated very many places.

The city did not have the capital, and I will confine myself to the Interborough side of it with which I am familiar, although the Brooklyn plan is identical in principle. The city did not have the capital. It invited the Interborough Rapid Transit Co. to raise the capital necessary to construct, equip, and operate its part of the plan that the city laid out—not our plan; their plan—the plan we advised against. We did not have it in our treasury anywhere. It required \$80,000,000, the original plan, of new capital, of which we were to contribute \$58,000,000 for construction and \$22,000,000 for equipment. It was provided that we should not go beyond the \$58,000,000 for construction; that the city would contribute \$58,000,000 for construction, and more if needed, and we would contribute \$22,000,000 for equipment, and more if needed.

We had to refund the bond issue which we had against the original cost of all of our equipment of the old subway, and we therefore had to get out an issue of \$160,000,000 of bonds, which we got out.

These contracts were finally executed in 1913, after negotiations extending from 1907 to 1913. All the terms of the contracts were incorporated into acts of the legislature, so that there would be no

question about the power of the commission. The matter was determined by the court of appeals to be constitutional or legal, and investors generally were invited to take the Interborough Rapid Transit Co.'s fives in the aggregate amount of \$160,000,000, for refunding purposes, and the others that I have mentioned.

At the same time, the city was issuing bonds for its contributions. These are 5 per cent bonds, and the contract provided that we were to have a 1 per cent sinking fund, so that they would be amortized in about 38 years.

Now, when that proposition was made, it was perfectly apparent to anybody with the simplest knowledge of finance that you could not get the individual investors to put money to the extent of \$160,000,000 into that venture unless they were guaranteed by the city or unless they had first call on the revenues of the joint enterprise.

The city could not guarantee—and may I be pardoned for a moment now in digressing, because I deal with facts, and not with theory.

The discussion of Gov. Foss this morning about public ownership, that we are going to do it right off, so far as the State of New York is concerned—if I may be pardoned the use of a remark concerning the distinguished gentleman from Massachusetts—is nothing but stuff and nonsense.

Under the constitution of the State of New York, the city of New York has absolutely no power to lend its credit to any corporation, or to guarantee anything, or to become the owner of stock in any corporation; but before the measure suggested by the ex-governor of Massachusetts can be carried out in the State of New York, an amendment to the constitution must be obtained. This may seem like a law lecture, and probably it is familiar to you, but, very briefly stated, under our constitution, you can amend it only by a constitutional convention, or by an amendment passing the legislature; then the same amendment, as passed, being submitted to the next succeeding legislature, made up of the senate, which has, since the first enactment, been newly selected from the people; and then, after those two successive legislatures have passed the amendment, it is submitted to the people at the next annual election, and on the time-table as of to-day of the governor's program—mind you, I am not talking about whether public ownership is the thing or not; I am talking about whether you can do it now—we could not get anything through in New York State for our relief until the legislature next year passed it, in 1920; and then, there being an election in 1920 for senators, the senate of 1921 would be a new one, and they could pass it in the fall of 1921. If the people approved it, it would be in shape for the legislature of 1922 to pass the requisite legislation through by constitutional amendment. So that on the time-table—

Commissioner MEEKER. Has not the legislature authority, however, to amend the charter of New York City, so that New York may do it?

Mr. QUACKENBUSH. No, sir; it is absolutely prohibited by the constitution—no city. It is in the constitution. Not the city itself, nor any city or other political subdivision in the State, can do it. That is because, in the very early days, when I lived up in the central

part of the State, they came along and bonded my town to build the steam railroad out there. You all know the history of the early days of that. That was put in the constitution, so that no misguided gentlemen of the notions of the distinguished former governor of Massachusetts would use public moneys for any such things, for you can not put his ideas into effect until you have had the approval of two successive legislatures and have gotten the majority vote of the voting population of the State of New York.

The CHAIRMAN. Assuming that public sentiment in New York was ready for public ownership, what are the steps possible to be taken by which the properties in New York could be taken over, after the constitution had been amended and had been ratified?

Mr. QUACKENBUSH. If the legislature, convening on the first Wednesday of January, 1922, passed a bill and it was signed by the governor, the law would be there. Then would come the question of condemnation or purchase. By no possible stretch of my imagination can I conceive of the carrying out of anything that would protect my clients in less than three years from to-day. I think you can see that that would be so. That is moving pretty fast, too. So that that is not available.

Now, I digressed there, because that condition existed when you made the contract, and therefore the people who were to take out the \$160,000,000 of bonds, could not get any of the guaranty. They could not fall back on taxation or on the public treasury, and so it was provided that the private investor in the new enterprise should have the first call on earnings, and the city subordinated in the interest and sinking fund on its investment until the interest and sinking fund charges on our investment were paid.

Mr. WARREN. How much did you say the city's investment was?

Mr. QUACKENBUSH. Practically a hundred million.

Mr. WARREN. As against your \$160,000,000?

Mr. QUACKENBUSH. I had not come to that yet, but answering your question, the increased cost of equipment and additional equipment due to the enlarged system required \$40,000,000 of additional capital, which we procured last year through a note issue; so that our capital outstanding is \$200,000,000, as against the city's \$100,000,000, in round numbers.

Mr. WARREN. Yes. Will you resume, Mr. Quackenbush?

Mr. QUACKENBUSH. Yes. Now, I think I was about to speak of the obtaining of the \$160,000,000, which became last year \$200,000,000. I want to make this point about it, bearing on something I am coming to a little later, about the attitude of public officials.

Mr. Warren asked me about the city's investment and I said \$100,000,000. I want to call attention to the character of the so-called city's investment. The people of New York City have been told in the last few years how "they" have \$100,000,000 invested in the Interborough subway, and \$150,000,000 invested in the Brooklyn Rapid Transit subway, as if it came from the treasury of the city of New York.

Now, as I have said, it did not come from the treasury of the city of New York, because they did not have it, and all that they got was from the investors throughout the United States and Europe; probably the same individuals who bought our 5 per cent bonds bought the New York city bonds in the same enterprise to average

up their rates and sense of security. So that the enterprise, the subway enterprise in New York City, was put on its feet by the investing public of the civilized world.

The CHAIRMAN. Is the city obligated to pay those bonds?

Mr. QUACKENBUSH. The city is obligated to pay those bonds, but the money come from the investing public, and under the contract we are required to amortize that investment and it will go back to the people at maturity without the city treasury being the gainer or the loser. So that the thing to do is to consider it as an enterprise in which city credit is coupled with corporation credit and the money all the time is the money of the honest investor who put it in in good faith, and he put it in in good faith on the holding out to him of a contract which has been authorized by the legislature, sustained by the court of appeals, entered into by the city of New York, which provided that his investment would be a first call upon the earnings.

Now is there anybody that supposes for a moment that in 1913 when we raised \$160,000,000 that a single one of those people could think for a moment that a time would come when the city with \$100,000,000 of investment junior to ours, with a provision that so long as the interest and sinking fund on our investment was not earned it became cumulative with compound interest before the city was permitted to take anything out of the earnings for its interest and sinking fund—did anybody suppose that the time would come when such an investment would be in jeopardy? That the city, having the power at any time and the public-service commission representing the city having the power at any time to modify that contract so that if the revenues were not sufficient that they would be made sufficient to take care of the city's investment?

So that I say that morally the public authorities in the city and in the State of New York are estopped from doing anything to prevent that investment made under those circumstances from being self-sustaining. And yet we have been endeavoring for the last year, as the Interborough has suffered the fate of all tractions, to persuade the city administration and the public-service commission and the legislature to change that rate of fare so that that investment will be self-sustaining not only for us but for the city.

Now, bear in mind there can not be any talk of water about that, there can not be any of the distinguished governor's talk about fooling or half truths about what I am saying, because the records are all there to substantiate what I am saying. It is a question of \$200,000,000 which we raised; and \$100,000,000—I am now speaking of the completion of the plan—starving to death to-day.

Now, there are two hundreds of millions of new money put in in the last six years. There can not be any talk about water so far as that venture is concerned; because when we made the contract the question arose as to what was to be done to conserve our earnings in the old subway, which, as you know, had become prosperous, and it was agreed that we had built it up—we had taken the risk when, as I say, nobody else would—and we said, "Find out what our investment is," and the city mayor then, being the late Mayor Gaynor, appointed a committee of engineers and accountants, and they determined that our investment at that time in the original equipment of the old subway was, in round numbers, \$48,000,000.

Now, so that there can not be any question of the accuracy of what I say to you, you examine the contract and you will find that it is provided in the contract that after our bond interest comes out and sinking fund that we shall take out of the subway earnings \$6,335,000 a year and then after that, the city shall take out 8.76 per cent upon its investment, after which we divide equally. Now, of course, the city's bond interest and sinking fund averages 5½ per cent, and where does the 8.76 come from? The 8.76 was arrived at by adding the 48,000,000 which was conceded to be our investment, to the \$80,000,000 which we were to put in, making in round numbers one hundred and twenty-odd millions of dollars, \$3,000,000 coming out for a special reason, so it is \$125,000,000—and the special reason was that we contributed the tunnel under East River for \$3,000,000, which cost us eight or ten million dollars, but it was calculated at \$125,000,000. Six per cent on the 80,000,000 that we were to put in plus the \$6,335,000 produces \$10,000,000 or, which divided by 125 produces 8.76, which was what was contracted that we were to receive on the terms then under consideration. And it was said, "Well, you get that, the city must get that on its investment," so that the city of New York is in that venture, not as an exercise of sovereignty, but as a railroad corporation, engaged in profit, and the profit is the difference between 5½ per cent and 8.76 per cent plus the 50-50 that we divide after those things are taken care of. So that our investment to-day can not be disputed by anybody representing the public or anyone else for that matter, that it is the 200,000,000, 160,000,000 of bonds, 40,000,000 of notes secured by sixty-odd millions of bond—but I am speaking now in terms of money—\$248,000,000 standing there being starved to death.

Commissioner MEEKER. The fixed charges, then, are excessive because of this element of profit that the city gets over and above the 5½ per cent return on the investment?

Mr. QUACKENBUSH. They have not come within sight of that, Mr. Commissioner. But what I point out is that the enterprise is absolutely on a parity; and I want to make that plain to you, because there has been a good deal of talk that we had some advantage over the city of New York. Now we are absolutely mathematically down to a fraction on a parity with the city except that our investment is senior and their is junior in point of time of coming out of the earnings; that is all.

Now, on a 5-cent fare on the calculations made in 1913, it was agreed by the city and by us that probably for the first three, four, or five years the enterprise would not take care even of our fixed charges, because it would take time to build it up. And to provide against that, when our earnings were large on the old subway we accumulated a cash surplus of over \$10,000,000, and we had a book surplus of about \$18,000,000, the other portion of it being invested, however, in subsidiary lines whose credit has been so impaired that of course they can not now pay it back to us. To-day our situation is that we have exhausted that cash surplus. Our requirements are very heavy, as you know, and the last of our surplus went the 1st day of this July to meet our fixed charges, and now we are living from hand to mouth. We will be \$5,000,000 short on the 1st of January of meeting our fixed charges. The best possible estimate of earnings on a 5-cent fare, if the 5-cent fare continues, the deficit

from operations under fixed charges for the next three or four or five years will continue in sums of five, four, three, along there. It is the most hopeful view to take of it. Unless we get an increase in the fare between now and the 1st day of January it means a receivership for the Interborough Rapid Transit Co., unless some of the large owners are willing to take it on their backs and tide it over the 1st of January in the hope that the governor and the legislature may take it into their heads to do something. Our borrowing capacity is gone; we have not anything beyond possibly \$2,000,000, if we scrape the box, anywhere.

That is the condition of the Interborough Rapid Transit, and that is the condition facing the people who have got the \$200,000,000 at stake here. And the city in the meantime is facing the payment annually upon its investment in our subway of \$100,000,000 and \$150,000,000 in the Brooklyn Rapid Transit subway of thirteen and one-third millions of dollars.

Commissioner SWEET. The only remedy you see is in the raise of fare?

Mr. QUACKENBUSH. That is the only thing possible for this system.

Commissioner SWEET. How large a raise would be required?

Mr. QUACKENBUSH. An 8-cent fare.

Commissioner SWEET. To 8 cents?

Mr. QUACKENBUSH. Yes; 8 cents on the rapid-transit line, and of course in the city of New York you can not in fairness to the surface lines have any fare that is different on the rapid-transit line.

The whole solution of the thing should be an arrangement by which a universal 8-cent fare is charged for transportation in New York City with reasonable adjustments and provisions that if on the numerous independent surface lines that are in the greater city that produces an inordinate return there shall be a provision that it shall go into the property or, if you please, into the treasury of the city, because you have got to have them on an equality in order to carry out the proper theory of governmental regulation.

Now these facts are all known, and have been all known—

Commissioner SWEET. Would Commissioner Nixon have authority now to grant that raise if he wanted to?

Mr. QUACKENBUSH. There is one view in which he might have. The trend of judicial decisions in our State and in the United States Supreme Court is such that I am not prepared to say that he would not have it; but candor requires me to say to you that I would be facing long years of litigation, which of course would have to go to the Supreme Court of the United States, if he did not have additional legislative power.

Commissioner SWEET. Then you think that the legislature of New York should be called upon to give him that authority?

Mr. QUACKENBUSH. They certainly should; and we had a bill for that purpose there in 1918, and it did not get beyond committee in either house. The same bill was there last year. It passed the assembly and failed in the senate; both times failed because the two governors—Gov. Whitman in 1918, and Gov. Smith in 1919—were not able to see their duty requiring them to recommend anything to the legislature.

Mr. WARREN. Is there anybody who could grant that increase now but the city?

Mr. QUACKENBUSH. It could be done to-morrow by joint action of Commissioner Nixon, Transit Commissioner Delaney, and the board of estimate. I do not say now, because I want to be cautious on this subject, because my words may be quoted against me—I do not say that it is not possible to work out a legal theory which can ultimately be sustained which does not require the joint and concurrent action of those three bodies, but I do say that that gets rid of litigation. If Commissioner Nixon with the concurrence of Commissioner Delaney—and I will digress to explain that he is the commissioner in charge of construction work and has succeeded to the powers of the old Board of Rapid Transit Railroad Commissioners who were the contracting agents as to the rapid transit—if those two commissioners and the board of estimate and apportionment, consisting of the mayor—you know their composition—and the borough presidents and the president of the board of aldermen and the comptroller of the city would concur, that could be brought about within 24 hours' time.

Mr. WARREN. Without the need of any legislation?

Mr. QUACKENBUSH. Without legislation; and if that could be done, that ought to be done because, as I pointed out to you, we can not live beyond the 1st of January unless we get help. And when I say help—our credit will not stand it—I mean as a business proposition, not as it did last year. Last year we were able to get through with the aid of the War Finance Corporation, and but for them we never would have got through with our new capital requirements. But they took a part of our loan. The bankers who had placed the original one hundred and sixty millions spread the rest of it. And I doubt myself whether that was entirely a loan taken on an investment basis, but probably taken by the then owners of the same securities who did not want them to go through a receivership. And I do not know that anybody after listening to what I say here will be very likely to buy any of our bonds on the 1st of January. And I am saying what I say with a due sense of my responsibility, too. And the War Finance Corporation will not loan any more—and there you are.

Now the problem and the reason I am so vehement and so critical in my statement is that if this tribunal can do anything that will energize those gentlemen into concurrent action—I do not say mine is the only plan, but anything that will increase the revenue, then we can be saved from bankruptcy and the people who have not only the \$200,000,000 of notes and our stock, but all the other securities that I have not yet mentioned, because the companies that I represent have out approximately five hundred millions of securities, and that is one-twelfth of the whole problem you have got before you.

The CHAIRMAN. Delaney and Nixon were appointed by the governor?

Mr. QUACKENBUSH. Yes.

The CHAIRMAN. How many members constitute the board of estimate?

Mr. QUACKENBUSH. Five boroughs each have the president of the borough upon the board.

The CHAIRMAN. How are they appointed?

Mr. QUACKENBUSH. They are elected by the people; and then the mayor, the comptroller, and the president of the board of aldermen sit on the board of estimate, all elected by the people. They have different voting powers. The mayor, the president of the board of aldermen, and the comptroller each have three votes. The Borough of Brooklyn and the Borough of the Bronx each have two votes. The Borough of Queens and Staten Island have one vote each.

The CHAIRMAN. Would a majority vote of the board of estimate control the situation?

Mr. QUACKENBUSH. Yes, sir. So far there has been a sort of gentlemen's agreement over there that whatever is done is going to be unanimous.

The CHAIRMAN. The mayor is for municipal ownership, is he not?

Mr. QUACKENBUSH. The mayor is for municipal ownership.

The CHAIRMAN. And he has a vote?

Mr. QUACKENBUSH. He has three votes. His votes count 3 out of 16. I trust I have enumerated them correctly; but there are 16 votes, of which the mayor and the comptroller have 6 and the president of the board of aldermen 3, making 9 out of the 16, and then the presidents of the boroughs.

Commissioner SWEET. Those three men have a majority of all?

Mr. QUACKENBUSH. Yes, sir; those three men have a majority of all.

Commissioner SWEET. Why should the mayor, if he is in favor of municipal ownership, be opposed to a proper readjustment here?

Mr. QUACKENBUSH. Well, now—

Commissioner SWEET. I do not think Gov. Foss, according to what he said here this morning toward the last, under examination, would oppose. He said he was in favor of a square deal to the people who had already made investments.

Mr. QUACKENBUSH. Well now, so that what I say here may not be challenged in any quarter, before my answer I will refer you to a statement made on behalf of the board of estimate in January of this year by Comptroller Craig, in which was expressed the idea that they would not do anything so long as the existing contracts remained unchanged. They want to rewrite the contracts. The attitude—and mind you, now, I am speaking from memory and I mean to be accurate, but I want what I say checked up by the written document, because it is my intention not to go without its bounds—the theory is that if we are dissatisfied with our bargain, turn the roads over to them and they will operate them on behalf of the public. They will raise the fares, they will pay the interest and sinking fund on the city's investment and they will have due regard to the real investment, as they say, that is in the property.

Now, if you desire to know further concerning the attitude of the city officers, it might be well to ask the members of the War Finance Corporation to give you some information concerning their attitude when our application was before them for a loan a year ago, when the whole membership of the War Finance Corporation, Gov. Harding leading them, called upon the mayor and his colleagues. They went into executive session and I was not present, and I am not able to tell

you of my own knowledge what took place. Probably Gov. Harding could tell you. I have heard rumors that the view is that a receivership of the Interborough Rapid Transit Co. would not be regarded by the city administration as an unmixed evil (I trust that I am quoting accurately the statement), the theory being that, if we are busted, the owners will take the attitude probably of the distinguished former governor of Massachusetts who frankly said that he also had investments in tractions and would be glad to sell out on the best terms obtainable, and then they would have municipal ownership and operation.

The CHAIRMAN. Can that be done until the constitution has been amended?

Mr. QUACKENBUSH. Oh, they could operate, perhaps as an emergency measure. Suppose we decamped and ran away—suppose we fell down completely, they have under the contract the right, the public-service commission, to operate it instead of a receiver. Of course what will happen—a receiver will be appointed; and you have hit upon it, because I am answering Commissioner Sweet's question. I do not want to be understood as agreeing with their conclusions, because they also are born of complete ignorance of the law and of the contracts and of what will be done; but that is the theory, that they are going to starve the Interborough into surrendering its rights, surrendering the custody of the property. And these statements that I mentioned are in the public press at various times, coming from some of the officials, and I assume with the authority of all of them. Now, they can not do it, because if we are not able to pay our fixed charges, as you know, the mortgage securing the first 5 per cent bonds that I am talking about will be foreclosed, a receiver will be appointed and it will be the duty of that receiver under the instructions of the court to preserve the equities of the contract for the benefit of those bondholders. In other words, the contract will be carried out by the courts instead of by us, and the city of New York will be no forwarder. That is the truth of it. But the people of the city of New York do not seem to appreciate that, and unless you gentlemen are able to find out by checking up my statements that they are truthful and correct, and tell them, they will never know. Unless Commissioner Nixon tells them or the new commissioner, Delaney, and I have great hopes—the only thing that has cheered up my otherwise sad and desolate existence of the last few years was the action of Commissioner Nixon last week in ordering those transfers and his request to know what the conditions of the company are. So possibly he will state the facts, but he can not alone do the thing, except, as I say, in a possible theory that might be sustained.

Now, when we were undertaking to get that loan from the War Finance Corporation, we sought the cooperation of the city as the junior investor in that enterprise. We were not able to get it; and that is why I say the War Finance Corporation is able to tell you, if you are interested, why the city representatives would not turn their hands over to save us last year from bankruptcy. Because we had invested—I forgot to state that to you—in absolute good faith we had invested our entire cash surplus in construction account and a year ago this time we were right on the ragged edge, not able to meet current bills for supplies which were coming in from the Pullman Co. and from everybody, and we were on the rocks; and then

it was, as I say, that I heard it has been expressed as not being an unmixed evil if we did have a receivership.

Now, there is another phase of this matter, and I think I have covered it sketchily, that a good deal has been said about, and that is this question about the holding company, and that is where the old history comes in, and it is freshened up every now and then; that is, the Interborough Consolidated Corporation.

In 1906 the Interborough Rapid Transit Co., the operating company of the subway and the elevated, and the New York City Railway Co., the lessee of all the lines on Manhattan Island and the lines in the Bronx, formed a consolidation, not a merger, turned in their respective stocks in exchange for proportions of stock and bonds of the Interborough-Metropolitan Co.—as it was then called, since by reorganization, now called the Interborough Consolidated Corporation, which, by the way, went into the hands of a receiver on the 21st day of March, 1919.

Now the Interborough Consolidated Corporation took the thirty-five millions of capital stock of the Interborough Rapid Transit Co. and for that exchanged seventy millions of its $4\frac{1}{2}$ per cent bonds. That was equivalent to a 9 per cent annual dividend upon the Interborough Rapid Transit Co.'s stock. At the time we made the contract with the city in 1913, the Interborough-Metropolitan Co. was in existence, and through its ownership of this stock controlled through voting power the action of the operating company in making the contract. It was known by everybody at the time that the Interborough-Metropolitan Co. had in addition to the \$70,000,000 of bonds \$45,000,000 of preferred stock. Now, the \$6,335,000, which has come to be called a preferential, that we are entitled to take out of the subway earnings represented our average net profits of the years 1910 and 1911. They were taken as a fair test and agreed to.

I have not said anything so far about the elevated features of the contract, because the city did not have any investment there. I wanted to impress upon you first the fact that the city's own investment is not being taken care of intelligently or faithfully by anybody.

Now we put many millions of dollars in the improvements of the elevated lines and added and extended the lines and third-tracked them and made an agreement with the city by which it shared in the profits above our average profits of 1910 and 1911, which in that case were \$1,590,000. Now the sum of those two which have been called preferentials was known to everybody to be sufficient, with other nonoperating income which we had, to pay a dividend on our preferred stock.

Now, I say that when those facts were known and when it was known to the people with whom we were in daily conference for three years of time that the Interborough-Metropolitan Co. permitted the Interborough Rapid Transit Co. to make this contract and they knew that that was done on the strength of these preferentials and that those preferentials were sufficient to pay the interest on the $4\frac{1}{2}$ per cent bonds plus a return on the preferred stock, that it is wicked, immoral and unjust and nothing but simple repudiation morally for anybody who took part in that transaction or who succeeded those who did take part in it, to starve us now into the destruction of the values of that preferred stock and of those bonds.

Now, that is the elevated and subway part of that holding company. In addition to that, we had the securities of the New York Railways Co., which had come through a four years' receivership from 1907 to 1912, during which time, as I think Gen. Tripp has told you—he was the chairman of the joint reorganization committees, and I imagine he gave you in a general way the facts about how the capitalization was written down. At any rate, when we took the properties over after the examinations of the reorganization committees and of the public-service commission, the commission itself found that there were warranted at that time an issuance of \$85,000,000 plus of securities. That was for capital purposes.

Mr. WARREN. That is the surface railways?

Mr. QUACKENBUSH. The New York Railways.

The actual capital outstanding after the reorganization and today was less than \$100,000,000. I think the view that the commission took at the time was that the margin between values and capitalization was about \$16,000,000, and they directed an amortization fund of \$108,000 a year to be set aside out of earnings to take care of that difference. We did not agree with them at that time that they had that power, and subsequently without litigation they agreed that they did not have it and rescinded it. I mention it as an evidence of value that they regarded as there.

Now, in 1917—I am coming back now to where I quit about the transfers, and I am talking now about the surface lines and the holding company's investment in the surface lines—I had this property appraised by Ford, Bacon & Davis. And I told those gentlemen—and when I say these "I's" I am doing it for brevity and not because I am the whole thing; I do not want to appear here to be immodest, but to be brief; everything that I have done has been with the consent and knowledge and conference with the president and executive committee, and I am the lawyer of the concern—I said "I want an appraisal now that we can get quick action. I do not want anything to be put in here that is going to be arguable even, because we want emergency action. You appraise it on the cost to reproduce less depreciation on the straight-line method. Never mind what your views are about it; you appraise it on prewar prices and you leave out any question of franchise value, any question of superseded value, any question of going value, any questions of the many things that you gentlemen know are perfectly proper in a rate case, and make a report to the owners on which we can ask for emergency relief." And they found the property was worth in round numbers on these eliminations and others which occur to you, \$70,000,000.

Now, we have been paying taxes for years on a special franchise tax valuation of \$16,000,000, leaving out all the other questions. Now there we have \$70,000,000 on which we have not earned one penny for our stock, and on the reorganization it was reduced to \$17,500,000 of which, in round numbers, \$16,000,000 is in our treasury and some of the rest of it in the hands of the public. We have not earned a dollar on that from the day we took it over on the first of January, 1912.

Now, the physical valuations made by the public-service commission in 1910 on which they made their order allowing our capital issues in 1911 and 1912 indicated at least \$50,000,000 of tangible

property. On that reorganization were issued at \$30,000,000 of income 5 per cent bonds and at no time since the first of January, 1912, did they receive their full 5 per cent interest in their six months' periods. Taking the calendar year—in the year 1916 they either received it or so near to it that it was regarded as practically 5 per cent. Since June 30, 1916, nothing was paid on them.

Now, underneath those bonds the only securities on the New York Railways Co. lines were—I speak more in round numbers—\$9,000,000 and odd of underlying liens on the various owned companies, \$21,000,000 of securities on the 12 leased lines, and \$18,000,000 of the first fours. In other words, the funded debts on that property were only \$48,000,000, and yet that property went into the hands of a receiver on the 20th of March last and the first mortgage of \$18,000,000 is now under foreclosure.

Now, there is something wrong when that situation arises and when under such conditions there is any talk about water. I never have mentioned the question of the securities except as I have mentioned them here on the theory that everybody knew they were out and made a bargain knowing that they were out, and when people make bargains under those conditions they or their successors ought to be ashamed of themselves to repudiate them.

But the holding company has nothing to do with it. I do not need to say that to the gentlemen sitting here. The question is the investment; and under the statutes of the State of New York it is the value of the property devoted to the public service that is entitled to a fair average return, having due regard among other things to the necessity of reserving out of earnings a provision for surplus and contingency. Now, that is a queer phrase, but I am the author of it. I have sat with the legislature in every revision of the public-service-commission law year after year, and I will tell you for a moment just how that came about.

The law of the State of New York from 1850 to 1910 provided that rates would not be reduced unless during the preceding year the company had earned more than 10 per cent upon the capital actually expended. Now, the gentlemen who were on earth during that time I think knew a great deal more than some of the highbrows that have come around since, and I think you will agree with me. Gov. Hughes in 1909 refused to approve the consolidated report of the revision commissions on the railroad law because they left that 10 per cent provision in. He insisted on its coming out. And in 1910 the matter came up and we had a general revision of the law. And I said at that time, and with all due regard to the governor, that that was not good business, and this phrase that I mentioned to you was the best that we could get as a compromise.

Now, that meant Smythe versus Ames; that is what that meant. It did not mean 6 per cent. It meant all the things that the gentleman who preceded me has said, and I indorse everything he has said. It means, of course, you have got to have something to attract capital. You have got to keep the industry going, and you have got to have provision for reserve, and we have not been able to get those things. So I say to you it is not the fault of the law.

And one thing which I should have said to Mr. Warren in the beginning in this rather rambling statement I will say now. Possibly

if the provision which obtains in many of the States for filing schedules and having a hearing afterwards had been put into the law of 1910 we might have been a little further along, and when we get the next crack at the public-service-commission law something of that sort I think ought perhaps to be put in. But that is not the thing.

Now, I have told you I have eliminated water. I have shown you the values of our main leading property. We have got others which I will not go into here. I am not saying that we are entitled to returns on the lines perhaps over on Long Island in which we invested our good money, but we invested there with the idea that we would wait until that borough grew up. That is a business venture and we can not squeal much about that. So I merely mention it to call your attention to the fact that we have other things under our outstanding securities than the things I have specifically mentioned.

Commissioner SWEET. Suppose you laid aside all interest in the investment and simply looked at this question in New York from the standpoint of a citizen who needed this service, the same as all citizens do; what would you say was the best policy—I am eliminating now the question of morals, and honesty is always the best policy, but the best policy from the standpoint of the citizen—for the city to take or the State so far as it has control?

Mr. QUACKENBUSH. Now, Mr. Sweet, I want to say before I answer that question, lest I be thought to be absolutely poisoned with prejudice on one side, that I began my career serving the public—

Commissioner SWEET. You see, I am absolving you from prejudice.

Mr. QUACKENBUSH. I know you are, but I want to make it clear for emphasis, that years ago I was city attorney of the city of Buffalo, N. Y., and I think I can still divest myself of my experience and give a fair answer to your question. And there is not any doubt in my mind that even if there be a receiver appointed of the Interborough and all these line, you can not get the service the people are entitled to until you solve this question by increasing the rate of fare.

Now, in New York City the congestion—or density of traffic is a better word—is such that the troubles in Boston and other places won't count. And the direct answer to your question, without circumlocution, is that the best thing for the citizens generally, particularly for the riders, is to impose at once an 8-cent fare. Now, we are perfectly willing that the city shall take 1 cent out of that 8 cents to insure it gets a return on its investment. Our president, before he became ill, went before the board of trade and transportation and authorized them to transmit to the board of estimates through their committee an offer to the effect that, if they would increase the fare to 8 cents, we would agree that they should take 1 cent out of the 8. Now, 1 cent out of 8 will take care of their interest; and that we would waive a lot of things which you are not interested in. The comptroller did not receive the communication and said that they had closed the situation, so I am informed, when they denied our application of December 31, 1918.

Now, that railroad, just like any other railroad, can not render the kind of service that is needed unless it has an adequate return.

Commissioner SWEET. Are you figuring that there would be any falling off of patronage?

Mr. QUACKENBUSH. Yes; we are figuring—and in this we have the advice of distinguished engineers like Stone & Webster, Day & Zimmerman, Barclay, Parsons & Clapp—

Commissioner MEEKER. The falling off would be very slight in New York?

Mr. QUACKENBUSH. Well, we have made our estimate which warrants my statement to you that it would be perhaps 13 per cent the first year and 12, 11, and so forth, because conditions in New York, as you know, are unique—I mean, particularly, Manhattan, and—

Commissioner SWEET. Of course, you understand, Mr. Quackenbush, that this commission can not enter definitely and distinctly into local problems.

Mr. QUACKENBUSH. No; I do not expect you will, but on the other hand—

Commissioner SWEET. We are looking into it, and we are listening to you with a great deal of patience, and we are glad to hear these local problems with a view of formulating a general idea of the situation throughout the country, and that is all anybody can expect of us.

Mr. QUACKENBUSH. I appreciate you can not take up our quarrels; but on the other hand if you do not know the facts, you are not informed.

Commissioner SWEET. No.

Mr. QUACKENBUSH. And you are going to hear some other side of these facts and I wanted you to hear my side.

Commissioner SWEET. Of course, you understand the situation generally throughout the country?

Mr. QUACKENBUSH. I do.

Commissioner SWEET. And do you think that there is a function that can be performed by this commission which will be useful to the general public?

Mr. QUACKENBUSH. This commission can perform the function of pointing out that the duty of public-service corporations or of the local authorities of the municipalities is—

Commissioner SWEET. To represent the public?

Mr. QUACKENBUSH. To represent the whole public; that is this, to be courageous, to tell them the truth: That rates should be determined not by ancient history but by what is devoted to the public use; to tell them that the public can not have good service or safe service or convenient service, no matter who owns the instrumentality, unless the public or the public treasury pays an adequate price for the service rendered, so that you can keep it up.

Commissioner SWEET. Just as they have to pay for commodities which they buy for the table or anything else.

Mr. QUACKENBUSH. Of course, it is the same thing. We are not dealing with anything else. And then, and the main thing, and if I may be pardoned for an expression, but I think it will be interesting, I remember perfectly well when the question was whether we were going to get into the war, being present at a meeting at which Joseph H. Choate and Mr. Root and others discussed the question. And I remember also being present at a later date, and a day or so before Mr. Choate died, at a meeting in which the former prime minister of France was present, and I remember that what Mr. Choate said was, "If you are going to do something, for God's sake hurry up." Now,

that is what we are asking, and that is the message that I think you can convey to these public bodies. If you are going to do something, do not take the advice of the governor of Massachusetts but hurry up. Put a little oxygen into the patient and then build him up; and then, if a major operation is needed, perform it.

Now, those are the things that ought to be done; and the only thing that you can do, in my judgment, that will be of any value to us and to the industry generally is to put a stop to the cheap talk, what Governor Smith in his campaign facetiously said was "old stuff." Now, our laws recognize the statute of limitations on a great many things, and with the history that I have given you of our negotiations with the appointees of Governor Hughes, whom I have criticized—and the time is never going to come when public servants are not going to be subject to criticism, I hope, but whom I have always said were well-intentioned men and certainly were absolutely above any suspicion as to their integrity—those men made a contract with us. It was ratified by Mayor Gaynor and his board of estimate after he had made a campaign against having anything to do with us. Now, if we were good enough to contract with in 1913, and if it was all right for us to be the instrumentality of getting \$200,000,000 put into this enterprise, it is about time to have the statute of limitations run on matters which were done by William C. Whitney and his colleagues in the late eighties or early nineties.

We have gone through the public-service commission fire on reorganization; we have been through a receivership on the surface lines, and we are back again; and the thing is not to talk buncombe but to recognize facts; and I say you can help on that.

Now, as to the other thing—and I think that I will mention this because at a meeting at which I was present, among some of the gentlemen who are here in this room, one of the members said that what troubled him in dealing with this whole matter was how to meet the constant statement that you are seeking to repudiate your contracts, and, of course, that view does prevail. And I think there this body may do a service if you will get the public to see that after all it is the public that is interested in the question of rate; it is their business, and that no matter if 20 years ago with conditions entirely different the local authorities of some little village or some big city and some well-intentioned but ill-advised corporation managers made contracts that no longer fit the case, that the interest of the people is the supreme law, and that if the time comes that the interest of the people requires a modification of the rate, and the carrier is ready on its part to modify them, and the people represented by their sovereign representatives in the legislature, for instance, or their delegated bodies are ready to do it and the local authorities of the little town or the village or small city or medium-sized city or the big city come up and say, "We make a contract," the answer is that the sovereign people represented by the legislature or its delegated commission will say to the local authorities: "That contract was all right as between you and that carrier, that contract probably to-day will be recognized in the courts as a judicial matter, but now the principals are dealing face to face, and I, the people of the State, do not any longer need your service, Mr. Agent, city, town, or village; now you just step aside and you forget your little petty and short-sighted vision of this question, and I will make a bargain with the carrier that

will be in the interest of the general public, whose interest after all is the only concern of anybody."

Now, that view has not been, so far as I know, very much stated. I think that its general expression—it is well founded in law—its general elucidation will be very helpful in educating public opinion, which is what I believe is the function of this body, and it will help those local authorities and those courageous public-service commissions and members of legislatures and governors who want to do their duty over troublesome hurdles.

Now, I have lots more ideas but I think my time has expired. If there are any questions, I want to be very free in answering them.

THE CHAIRMAN. Mr. Quackenbush—

MR. QUACKENBUSH. Oh, may I add—I hate to interrupt you, Mr. Chairman, but my talk, I quite appreciate, has been rather vehement. Lest you should think that I have lived a quarrelsome life with the public-service commissioners I want to say to you that with all the companies that I have represented during the whole period of the life of the public-service commission, we have had one case against us, against the Interborough Rapid Transit Co., for penalty for failure to render service, in which we succeeded at the trial court. We have had one or two differences of opinion in which, with the exception of the 2-cent fare rate, we have succeeded in the courts. We have been represented in all these years as defiant of the public-service commission. We have been represented, not by them altogether but generally by public officials, by public-spirited citizens, by some of the newspapers, as defying their orders.

We took the New York Railways Co. on the 1st day of January, 1912, under the orders that had been made by the commission when the receivers had it in 1908 and 1909. They never made a new order. We operated it without an order as to service, and there was no order made until last September, when the commission was stampeded into making an order by the district attorney of the county, who said—when we could not get enough men and were hiring women, and everybody knows the conditions in the middle of the summer—that if they made an order he would see that somebody went to jail if they did not get more cars, so they made an order. I want you to keep that in mind in connection with what I have said; and it is that we have rendered such service in the city of New York on the surface lines that they did not make an order, and we have rendered such service on the elevated and subway lines that they have never had to make an order. They have made a general order and we have had conferences and we have agreed, with one single exception, and my personal relations with the gentleman whom I have criticized are agreeable and satisfactory. Whether they will continue so I do not know and I do not care.

Now, Mr. Chairman.

THE CHAIRMAN. In a general way, Mr. Quackenbush, your testimony this afternoon has been quite a serious indictment of the administration of the law in New York City.

MR. QUACKENBUSH. Yes.

THE CHAIRMAN. Has that criticism been directed toward the public-service commission particularly or all of the different officers who have to deal with your public problems?

Mr. QUACKENBUSH. The public-service commission and board of estimate, combined.

The CHAIRMAN. Combined?

Mr. QUACKENBUSH. Yes.

The CHAIRMAN. Has it not been a well-accepted fact in New York City that you had a 5-cent contract—I mean a 5-cent-fare contract—and that that imposed an obligation which the city could force you to live up to?

Mr. QUACKENBUSH. That has been preached but it has not been an accepted fact. Every intelligent newspaper has not accepted that as the fact. They have recognized what I undertook to say here a few minutes ago—that a bargain made under the circumstances which I have described, which produced no return to the city's investment required revision in the interest of the taxpayers of the city, leaving out entirely——

The CHAIRMAN. But has it not been the law as interpreted by the courts of that State, at least up to a recent date, that a franchise of that kind was an established affair?

Mr. QUACKENBUSH. That contract regarding the rapid-transit lines has never been the subject of litigation in any court in the State. What you have in mind is the decision of the court of appeals in the Rochester case.

The CHAIRMAN. Yes.

Mr. QUACKENBUSH. Which has no relation whatever to the rapid-transit situation.

The CHAIRMAN. But did not the Rochester case decide that the city had no right to relieve the company of a 5-cent charge?

Mr. QUACKENBUSH. No. The Rochester case decided that the act of 1910 did not definitely and clearly convey to the commission jurisdiction to fix rates of fare in controvention of the terms of a franchise granted since the amendment of the constitution in 1875. They did not say that they had no right to do it. They simply said that in precise language they had not done it, and then immediately the legislature was requested to do it, and since that time several decisions of the court of appeals have been handed down clearly showing that they would hold that the legislature had the power. Now that is all there was in the Rochester case. And Judge Hughes made the argument before the joint committee of the senate and the assembly on the 12th day of March of this year right along the lines I am now stating to you and expressed as his own opinion—and he was the author of the law—that the court of appeals had clearly intimated to the legislature that, if they acted, they did not possess the power to act; and their last decision within this week I have in my pocket, and I suppose you have seen it.

The CHAIRMAN. But until a recent date the public-service commission has been of the opinion that they did not have the right to modify that contract; is not that so?

Mr. QUACKENBUSH. No. I am glad you asked that question. As soon as that decision came down, they were of the opinion in New York that they could not take any action on anything, and I convinced them that right within the terms of that opinion they had power over transfers, because they were of statutory origin; and

they wrote an opinion that they did have the power, and it is a matter of record, but they never exercised the power.

The CHAIRMAN. When was that opinion written?

Mr. QUACKENBUSH. The decision in the Rochester case came down on the 5th of April, 1918, and I immediately presented the thing to the public service commission the latter part of April or May, 1918, and it is in the Third Avenue case, and you will find it cited in the report. I should say within a couple of months. It took some time to figure it out, but within a couple of months they reached that conclusion and made their decision. But they said—and with this I agree—that it would be much better if, instead of their trying to give an unbalanced relief by eliminating transfers here and there, we could get the consent of the board of estimate, to let them decide the whole question. And we immediately applied for their consent, which they declined; and then we went back to the commission, and I said to them in language that is as plain as I have said here to-day, "Do something. We are on the rocks; we are going to be broke. Give us a charge for transfers that will help us along." And the last commission went out of office. The case closed in November and they went out of office on the 8th day of May without its being decided.

The CHAIRMAN. You claim you have been very closely in contact with the commission from 1907 up to date?

Mr. QUACKENBUSH. I do not believe anybody has been any closer except their own organization.

The CHAIRMAN. When was the first time your railroads asked to have the fares increased?

Mr. QUACKENBUSH. In May, 1917, as soon as we got into the war.

The CHAIRMAN. Up to that time you had been operating upon favorable terms?

Mr. QUACKENBUSH. We had been as to everything except the transfers. Now as to the transfers, we started the education of the commission in 1907, and had a struggle with them right straight along, so that the fare question—and by that I mean the rate question, our 3½-cent rate which we had—has been a subject of testimony—well, going from here up there [indicating], 3 feet of it, extending over months and months at a time, and they all the time were going to extend the transfers. Does that answer that question?

The CHAIRMAN. Yes.

Commissioner BEALL. You are familiar with that decision given last week in Buffalo?

Mr. QUACKENBUSH. Yes. You will find I am on the brief intervening.

Commissioner BEALL. Some people think that will apply to New York and others do not.

Mr. QUACKENBUSH. Well, I think that it indicates the need of additional legislation and that the legislation will be sustained.

Commissioner BEALL. Do you think it applies to New York City or do you not care to express an opinion?

Mr. QUACKENBUSH. Oh, I am willing to express an opinion on anything you ask me. I think it applies, but not to the extent of giving the adequate relief that we ought to have. I think it enlarges considerably the limited jurisdiction possessed by Commissioner Nixon, and I hope to be able to persuade him and his advisers

as to the correctness of my views, but it is not going to solve the thing.

The CHAIRMAN. I presume regulation is not in a finished state yet. In New York you have one public-service commissioner, Mr. Nixon.

Mr. QUACKENBUSH. Yes.

The CHAIRMAN. In view of the great mass of detail work which must come before the commissioner for his judgment, do you think it possible for one man to successfully and properly officiate as the commissioner to regulate those large transportation and other utility questions?

Mr. QUACKENBUSH. Well, I would say immediately, no; but you must bear in mind, Mr. Chairman, that the amendment of this year created a single commissioner, but authorized him to appoint deputies, which he has done, and those deputies fulfill exactly the functions that were fulfilled by the associate commissioners under the old act. It is the same thing under a different form of organization.

Commissioner MEEKER. How many deputies have been appointed?

Mr. QUACKENBUSH. He has appointed Mr. Glennon and Mr. Barrett so far. I do not recall any others. My recollection is that he has authority to appoint at least three. But the idea of it was to economize. Commissioners' salaries, as you know, before were \$15,000 a year for five, making a salary list of \$75,000, and the salary of the commissioner himself was cut down and the deputies' cut down to \$7,500.

Whether that is wise remains to be seen. I do remember on that subject—and it is pertinent to a question which was asked the governor of Massachusetts—that when the question of the salaries of the original commission was under discussion in the legislature in 1907, it was pointed out by some opposed to so high a salary as \$15,000, which meant \$150,000 for the two commissions, that Gov. Hughes recommended that because, notwithstanding that the salaries of the judges of the court of appeals of the State were only \$12,000, Gov. Hughes would appoint to the commissions men of such standing and ability that their decisions would be accepted by the carriers, the utilities, and by the public as final and it would be unnecessary to go into court to review them; he was going to get men of the highest grade, and I have no doubt the governor intended to do so, and as I have said, so far as character, integrity, and intelligence, he succeeded, but he did not succeed in getting men who held the scales even.

The CHAIRMAN. If the railroad and the public officers should modify the contract to an 8-cent fare, is there any appeal from that contract on the part of the public?

Mr. QUACKENBUSH. No; not if it is by agreement.

The CHAIRMAN. That forecloses the question; they can not even attack the legality of the rate in court?

Mr. QUACKENBUSH. Oh, yes; I am very glad you asked that question.

The CHAIRMAN. I wanted to know that.

Mr. QUACKENBUSH. Yes; I can answer that in a minute. Since the separation of the functions of regulation and of construction and contracting, which formerly had been combined in the public-service commission, Mr. Nixon now is vested only with jurisdiction to regulate—that is the rate-making power of the State of New York.

Mr. Delaney is the contracting agent of the city, and an amendment to the contract would be made by Mr. Delaney; and assuming now the general view that prevails, but not conceding its correctness, with the approval of the board of estimate and apportionment and ourselves. That is the contract part. Then we must go in on the rate-making feature and have its fairness determined by Mr. Nixon in an ordinary rate case, which is subject to review on the complaint of anybody in the appellate division on certiorari.

The CHAIRMAN. So there is some remedy in court?

Mr. QUACKENBUSH. Yes; I was hurried in my answer, because for the moment I forgot about the fact that a person could intervene, as you know, under the State and make a complaint that the rate is unduly burdensome upon the public and have an ordinary rate case heard and have his day in court on certiorari. There is not any danger of any job, in other words.

The CHAIRMAN. I do not care to examine on the mass of figures you have presented. It is rather an intricate situation involved in New York.

Mr. QUACKENBUSH. Well, I did not mean to go into a mass of figures, but I wanted you to see that there are certain principles underlying it.

The CHAIRMAN. I am very glad to have them in the record.

Mr. QUACKENBUSH. If I have made that clear, I have done what I sought to do.

Mr. WARREN. We are very much obliged, Mr. Quackenbush.

(Witness excused.)

Mr. WARREN. I trust the commission fully understands that in putting on evidence with respect to particular situations, we are not doing it with the expectation that the commission will endeavor to cure them, but simply as isolated instances of the general situation we want to bring before you.

At this point, if I may, I should like to put in a letter from Mr. Thomas A. Edison. It happens to bear on the very question of contract that the last witness discussed:

ORANGE, N. J., July 22, 1919.

FEDERAL ELECTRIC RAILWAYS COMMISSION,
Washington, D. C.

GENTLEMEN: I have been very much interested in the progress made by the electric railways since I first built one at Menlo Park, N. J., in 1880.

The systems, operation, and apparatus have now reached great perfection. Some of the greatest engineers in the country have given almost the whole of their lives to attain this end. The end is not yet reached. The great trunk lines will, in time, be added to the electric domain. It is to the greatest advantage to the public that every encouragement be given to those who have and will still further act as pioneers in the further perfection of this flexible and highly economical system of power distribution, whereby our natural fuels are conserved to a greater extent and all the power of waterfalls utilized.

At the present time the electric-railway industry has reached a serious stage. Everything has stopped advancing. Countless millions of securities based on this industry are held by conservative investors, families, etc., who are possessed of a dread for the future. No more capital can be obtained, except in special cases.

The ironclad contracts between the roads and the cities made in the pioneering days under normal conditions have no protective clause against the greatest change that has taken place in centuries, due to the World War. The municipalities can exact their pound of flesh if they so desire, with the ultimate bankruptcy of these organizations, but the spirit that is now abroad in the world is against this. We are now all trying to play fair. If suffer we must,

let us all suffer alike. If prosperity comes, all should participate in a like manner.

I hope the commission will succeed in placing this industry on its feet again. This, in its turn, will stop stagnation; give the roads stability to raise plenty of capital; new extensions will go on; new things will be perfected and introduced. The restless Americans who work all day and far into the night are forever pushing higher and higher that great line of 30° angle, illustrating the rise of the American Nation in wealth and power.

Yours, very truly,

THOS. A. EDISON.

STATEMENT OF MR. JAMES O. CARR.

Mr. WARREN. Your full name is James O. Carr, I think?

Mr. CARR. Yes, sir.

Mr. WARREN. And you reside where, Mr. Carr?

Mr. CARR. Pittsburgh, Pa.

Mr. WARREN. And you were one of the public-service commissioners in New York of the up-State district between what dates?

Mr. CARR. May 1, 1915, to February 1, 1918.

Mr. WARREN. And before that in what were you engaged?

Mr. CARR. Well, for about 20 years I was very actively engaged in the operation, construction, and reorganization of public utilities, street railroads, electric light and gas companies.

Mr. WARREN. And for about how long, Mr. Carr?

Mr. CARR. For about 20 years.

Mr. WARREN. So that your experience ran back pretty nearly to the electrification of horse railroads and the construction of new electric railroads; did it not?

Mr. CARR. The electrification generally of street railroads began about 1890, as I recall it.

Mr. WARREN. And your connection with the work began about five years later?

Mr. CARR. No; I was connected with it before that time, but not so actively.

Mr. WARREN. There is only one point on this that I want to get from Mr. Carr, and that is as to the extension of rides in the earlier days of the business.

Mr. Carr, did the electrification of street railways generally involve the construction of extensions affording the public longer rides for the old nickel fare than they had formerly enjoyed?

Mr. CARR. Very much so.

Mr. WARREN. Would you give the commission any particular example of that which you may recall?

Mr. CARR. Why, I think that is true of practically every city in the country; and I imagine every man on this commission recognizes that fact. I recall very specifically one case, and that was the city of Schenectady, N. Y.

Mr. WARREN. Won't you tell briefly just what happened there?

Commissioner BEALL. Are you the man who used to be with the Schenectady company?

Mr. CARR. I am the same man; yes.

Commissioner BEALL. I have not seen you for a good many years.

Mr. CARR. You remember the Schenectady property also?

Commissioner BEALL. Yes.

Mr. CARR. At that time, in 1890, the Schenectady Railway consisted of a horse road about—I think, all told, less than 3 miles long—just one line of road, no branches or extensions; and the fare on that road was 5 cents, fixed, I believe, by the original franchise which was granted in 1886. That road was electrified in 1890. It continued to operate as an electric road from 1890 to 1900, at which time the property was acquired by the General Electric Co. in connection with its development at Schenectady.

It was absolutely essential for it to have transportation facilities for the employees in that city. The road was developed from that time, from 1900 to 1905, from around $3\frac{1}{2}$ miles of track to 110 miles. That, of course, included interurban lines, but the city lines comprised, as I recall them, about 26 miles of track. And, of course, the city lines as they were extended formed a part of the interurban lines. So that the result was that in that city in particular, where the passenger had a ride of around 3 miles if he took the entire ride in 1900, in 1905 and since that time, he had a ride if he desired it of 10 miles, and in some instances—well, approximately 10 miles for a nickel, and he could not only take it in one direction, but he could take it in half a dozen directions.

Now that is one concrete illustration of the extension of service with no increase of fare, and that has been true all over the country. The 5-cent fare was a—well, it was a motto, almost a household motto; you can ride on the street-cars for a nickel.

Mr. WARREN. Do you remember the Boston situation?

Mr. CARR. Yes; I used to live in Boston.

Mr. WARREN. I thought you did. That consisted before electrification of a number of different horse-railroad lines, did it not?

Mr. CARR. Yes. I remember in the old days of riding to Brighton on the horse-car from Boston and nearly freezing, and its taking a period of one and a half to two hours.

Mr. WARREN. And keeping your feet warm if you could?

Mr. CARR. In the hay; yes.

Mr. WARREN. Before they were merged, the rate in Boston was 5 cents with a 3-cent charge if any person went from one of the radiating lines to another; is that the fact?

Mr. CARR. I do not recall the fact as to the transfers on the horse lines, but after the lines there were electrified, there was a 3-cent charge for transfers.

Mr. WARREN. And that was subsequently removed, after electrification?

Mr. CARR. I do not remember, because I moved away from Boston in 1894.

Mr. WARREN. But do you know that the lines were extended very greatly within the city?

Mr. CARR. Oh, very greatly, all over the suburbs of Boston.

Mr. WARREN. Now you have been a public-service commissioner and have had experience in that position. Will you briefly—and this is the only other subject on which we have called Mr. Carr, Mr. Chairman—state to the commission what effects you have observed either on the system or on the administration of supervision, and what changes you would suggest better to meet the situation which I suppose you with others would say exists to-day in the street-railway world.

Mr. CARR. Well, when I left the public-service commission I left it, as I assumed, for good; and I have not given any thought to the subject since that time. I assume I may be somewhat different from a good many men who sit on public-service commissions. I have rather positive ideas about a great many things, and my idea about a commission is that the commission should have full power to exercise the law.

I had the good fortune—as I thought at the time, but my pride has taken a fall since—to have written the decision in the State of New York in the second district commission, giving authority to railroads to increase any fare, and I thought I had done a very remarkable piece of work. I spent the whole summer on it, and the commission was unanimous on the proposition. It arose out of the plight which a very small street railroad found itself in down on Long Island.

Mr. WARREN. May I interrupt there with just one question? Is it your experience or observation or judgment that small companies are in just the same plight?

Mr. CARR. Oh, they are all the same.

Mr. WARREN. There is no difference between the small companies and the city companies. Now, you may go on with that case.

Mr. CARR. As I recall it, we had this matter before us all of the summer of 1917. There was an association of the railway companies in New York, in which, I think, some of the companies in the first district participated, endeavoring to impress upon our commission the necessity for relief to the corporations. It was an organized propaganda or an organized effort on the part of the corporations to make us know or realize that more money was required or would be required by the street railroads to enable them to perform their service. And after the hearings were given during the summer to the street railroad committee presenting general propositions, no specific data with relation to the operations of any particular company, but conditions in general with respect to wages, cost of material and things of that sort, we were able to get down to the consideration of certain specific cases which had been filed by the various companies with the commission. In fact, at that time I think the companies in Rochester, Syracuse, Utica, Albany, Ithaca, Binghamton, Elmira, Buffalo, Poughkeepsie, Kingston, and some other roads in the lower district had filed applications for increased rates. And as the result of the hearing which we had—we started in immediately with hearings after the committee had finished with its presentation of facts—I was able to bring to a point where it was ready for determination several of the cases that involved the fewer intricacies—that is, the smaller companies had a concrete state of facts as to which there was no dispute and as to which the valuations could be readily determined, which, of course, did not apply with the larger cities. And we made one case the case upon which to rest our determination, which was known as the Huntington case; and we decided in that case that notwithstanding the statutes in the State of New York, we had the right and the right had been delegated to us by the legislature to increase the rate of fare to the corporation if it was entitled to an increase in order to live.

Mr. WARREN. And that notwithstanding a fixed 5-cent fare in the franchise?

Mr. CARR. And that notwithstanding a fixed 5-cent fare. My view of that apparently, in which I am alone, except the four commissioners who stood with me in that case, was that the statute did not mean that the municipality had a right to fix a fare for all time as a condition for giving its consent to the operation by a street railroad in the streets of a municipality as against the State itself. In other words, we held that the State was supreme when it came to the question of determining what rate a public utility should charge. We then decided on that state of the law from our standpoint, from all the decisions of the courts, with one exception, the Westchester case, and basing our position on the cases that had been decided by the Supreme Court of the United States in some instances, that we had the power to grant an increase, and we did grant the increase in that case and numerous others.

Mr. WARREN. Well, the court sustained your view that the legislature was supreme?

Mr. CARR. No. —

Mr. WARREN. Oh, I thought they held simply that the legislature had not in your public-service law clearly delegated that authority.

Mr. CARR. I do not know what the real decision was because I left the commission before the case was decided, and I have never seen it.

The CHAIRMAN. The commission will adjourn at this point until 8 o'clock to-night.

Mr. CARR. I have to leave here at 9.25.

Mr. WARREN. I think we can get you off on that train.

(At 5 p. m. an adjournment was taken to 8 p. m.)

EVENING SESSION.

The hearing was resumed at 8 o'clock p. m.

STATEMENT OF MR. JAMES O. CARR—Continued.

Mr. WARREN. I judge from what you were saying, Mr. Carr, before the recess, that one thing you think should be remedied is the law under which the commissions act, so that in cases where they have not jurisdiction, either because of contractual franchises or otherwise, they should be given that jurisdiction over rates, and if the constitutions of the States interfere with the giving of such jurisdiction, you think the public interests would be served by changing the constitutions, so that authority might be given the commissions; is that so?

Mr. CARR. I believe that if public-service corporations are to be regulated by regulating commissions, they should have full power to regulate them. I have in mind particularly the New York law under which we were operating, which gave the commission every power that a regulating body could possibly have, so far as service was concerned. There was no limit, practically, to what could be required, but going along with that there was not the same power to provide the means for the corporation to get the money to make those im-

provements, if improvements were required, or to provide such other expenses as might be necessary to give the service that the public was entitled to, and which it demanded.

Mr. WARREN. That, in your judgment, is just as essential—the possession of that power is just as essential as the power over service; that one without the other—

Mr. CARR. One without the other makes it absolutely incomplete.

Mr. WARREN. Yes.

Mr. CARR. That law, as it now stands, gives every power to the commission to reduce fares, but it does not give them power to increase fares when increases are necessary, and absolutely required in order to enable the corporation to perform its functions.

Mr. WARREN. Now, in view of the present emergency, which has been testified to by various people here, do you think it is essential that some immediate relief should be furnished to many of these street railway companies?

Mr. CARR. That is a very broad question.

Mr. WARREN. Well, you qualify it in your answer.

Mr. CARR. Of course, whether or not there should be immediate action is a question of fact; and that fact, I believe, is easily demonstrated in most cases to prove that the street railways throughout the country to-day, in most instances, are barely able to earn their operating expenses. I do not believe there is hardly any in the country that is able to earn a return on its capital invested.

Mr. WARREN. Do you think that many of them are really not earning their operating expenses, properly defined, including a proper allowance for depreciation of the plant?

Mr. CARR. I think there is no question about that.

Mr. WARREN. Well, under those circumstances, it would seem to be necessary that they should get some kind of quick relief, even though of a temporary character; would it not?

Mr. CARR. Yes; I think that is true; and I also believe that a great many of the States have the facilities for affording quick relief.

Mr. WARREN. You do?

Mr. CARR. I think the State of New York, in so far as its second-district commission is concerned, acted with reasonable promptness on matters of that sort. At least, it did when I was there. We made it a point to expedite action wherever it seemed to be urgent, and it was expedited; but, of course, it must be borne in mind that there are certain provisions in the law which can not be ignored, and which make it obligatory upon the commission to satisfy itself that the company is not earning a fair return before it can increase the rate. But in most instances to-day I do not think the company would have very much trouble in satisfying a commission on that point.

Mr. WARREN. And satisfying them speedily?

Mr. CARR. And satisfying them speedily.

Mr. WARREN. So as to justify a speedy decision by the commission?

Mr. CARR. That is so.

Mr. WARREN. And if such decisions could be rendered, it would go far, would it not, to afford temporary relief for the situation, pending some more permanent form of relief?

Mr. CARR. Well, it all depends upon how they must apply the money that they get on the increase.

Mr. WARREN. Well, if they are not earning operating expenses, it would be a pretty simple thing to determine how the money should be spent; would it not?

Mr. CARR. Yes; but nowadays there seems to be a very decided fluctuation in certain elements of operating expense.

Mr. WARREN. Do you think the commissions should in any way control the expenditure of the money if they gave this emergency relief?

Mr. CARR. That is all provided for in the system of accounting which is required of these corporations under the State regulations.

Mr. WARREN. So that the commission could control the expenditure of the money to such an extent to see that it was applied as it should be?

Mr. CARR. I do not think any commission goes as far as that—that is, not so far as to attempt to dictate as to the actual disbursement of income for expenses. The most they attempt to do, so far as I have been informed, is to make their order, setting forth what the money that is derived from capital can be expended for. Of course, if the company attempts to expend money derived from capital for operating expenses, there is certain provision made for that. It shows up in their accounting.

Mr. WARREN. Yes, of course. This increase, of course, would be income, would it not?

Mr. CARR. That would be income, absolutely.

Mr. WARREN. Well, the commission, I think, probably in every case, has a right to call for reports periodically from the company.

Mr. CARR. Oh, yes.

Mr. WARREN. And if the commission should be satisfied that the money was being improperly spent, say for dividends, when the dividends should not be paid, the commission could easily reduce the emergency rate, could it not?

Mr. CARR. Undoubtedly.

Mr. WARREN. So that it—

Mr. CARR. I think that is a very remote possibility.

Mr. WARREN. Do you mean the improper expenditure of the income?

Mr. CARR. I think you would have great difficulty in finding a street railway to-day that would attempt to pay dividends when they were not having earnings enough to cover operating expenses.

Mr. WARREN. I agree with you. I think any emergency relief that they might obtain would be fully absorbed in taking care of the property.

Mr. CARR. That is it absolutely.

Mr. WARREN. But the delays that have been incident to some cases in that case would be more prejudicial to furnishing the relief which is needed at this time? I am not speaking of New York particularly; but in many cases in the past it has taken a long time to get decisions on rate increases, has it not?

Mr. CARR. Yes; it has, in many instances, where complicated questions arose, and as a rule, those delays were largely incident to the action of the municipality in which the corporation was located.

Mr. WARREN. They opposed it?

Mr. CARR. They invariably opposed any rate increase.

Mr. WARREN. Yes.

Mr. CARR. And the commission had to pass on questions of law and questions of fact; and I think it is the history all over the country that each locality, as a rule, fights any increase in fare. It appears to be human nature.

Mr. WARREN. But if the localities were convinced, or, at any rate, seriously impressed with the importance to the street railway of some increased revenue, as a result, possibly, of a report of this commission, if the commission should take that view, then it would be possible for the commissions, in a great many cases, to afford very immediate relief, would it not? That is, I mean within a few weeks.

Mr. CARR. It would. Yes, indeed.

Mr. WARREN. Instead of its being a matter of months?

Mr. CARR. The great trouble is that the people, as such, are not left alone. I believe the public—and by that I mean the people as a class—will decide fairly on any public question that is put up to them; but there are always certain people in the community that feel it incumbent upon them to advise and lead the public, with the result that there is always trouble, that opposition does develop in that way, and that is what has to be overcome before you can reason it and argue it out with the public, so as to make them actually believe what you are trying to tell them, that you are in trouble and you need help. Now, if you leave out the third party, your public will come to the front very quickly, but it is always a public benefactor that comes across and is trying to help the people who causes the trouble. That has been my experience, and I think I am right in saying it.

Mr. WARREN. But notwithstanding that, would not the commissions, in many instances, be justified, in this present emergency, in furnishing relief of a temporary character?

Mr. CARR. With respect to those commissions of which I have any knowledge, I have no doubt that every one of them would give relief to-day if a plain statement of facts was furnished them, if they thought it correct, without waiting for any great length of time to get a mass of evidence in front of them that they would have to pore over and spend their nights and Sundays in digesting. The purpose of every one of these commissions to-day is to aid the corporation that needs help, but where they are bound around with statutes and with constitutional provisions and other things that prevent them from giving that aid, they are absolutely helpless, no matter how much they may desire to help the corporation; and the best evidence of that is what has happened in New York.

Mr. WARREN. Yes, I appreciate that. But in cases where they have jurisdiction, you feel that many of the companies could furnish such a *prima facie* case as to justify immediate relief, and the commissions would be willing to give it, of a temporary character?

Mr. CARR. In the average case, where a corporation is required to keep its accounts as prescribed by the commission, a plain operating statement put in front of a commission would demonstrate whether or not they were entitled to any relief. That has the facts right in it. They do not need to go around it and to present any argument to show whether or not they are earning enough to pay expenses.

Mr. WARREN. That would be enough for the commission?

Mr. CARR. That would be enough for the commission, temporarily.

Mr. WARREN. Yes; I mean that.

Mr. CARR. It should be enough to show, taking a period of six months or a year, exactly what that company is doing with respect to its earnings, and as to whether or not it is making enough to take care of its operating expenses and any return on its investment.

Mr. WARREN. And in a period like the present, with costs going up as rapidly as they are, and with wages going up by leaps and bounds, as they have been doing in the last few weeks, the delays which would be incident to the ordinary procedure of the commissions would involve very serious injury to the companies; would they not?

Mr. CARR. Well, if there was any very long delay, I would say it would.

Mr. WARREN. Yes.

Mr. CARR. Of course, it is difficult to say how long you can keep a corporation that is on the down grade from becoming bankrupt, so that it can not continue any longer.

Mr. WARREN. Well, for example, a company whose wages are increased to-day from 40 or 45 cents to 60 or 62 cents would be pretty seriously affected by a delay of a month or two.

Mr. CARR. I should think that would be very serious. Another proposition: You can not very well pay things unless you have money to pay them with, whether wages are increased from 40 to 60 cents or 50 cents.

Mr. WARREN. If you do not have the money——

Mr. CARR. It is very essential to get it.

Mr. WARREN. Yes; without very much delay.

Mr. CARR. Well, you will have very hard work to get it, if that is your financial status.

Mr. WARREN. You say we will not find it very difficult to get money?

Mr. CARR. I say you will find it difficult to get money, if that is your financial status.

Mr. WARREN. I am only speaking about increased rates.

Mr. CARR. Oh, yes.

Mr. WARREN. I think that is all I want to ask Mr. Carr, unless you have something further that you want to say to the commission, Mr. Carr.

Mr. CARR. There is one statement that I thought I would like to allude to, not so much because of my loyalty to the New York Commission, but because I think it is a thing that ought not to go unchallenged.

Ex-Gov. Foss who testified there made the statement that—as I understood it, it was to this effect—that these so-called quasi-public corporations, as he termed them, spend most of their time in the halls of the various State capitols and elsewhere, lobbying for their interests and endeavoring to obstruct the laws wherever they could, and to prevent the appointment of capable men on the commission that would see that the rights of the public were protected.

Now, I think that is a statement that ought not to go unchallenged, as I say, because it is far from the fact. The trouble is that the appointing power, as a rule, where the commissions are appointed—in many of the States they are elected—but where they are appointed, I believe the public-service corporations are more interested than anyone else to have clean, able, upright men on the commission,

because it is to their best interests to have men of that character, yet in all cases the trouble with the appointing power is the politician. He is always there to see that a politician or someone who is selected by the politician is put on the commission, because it is considered a political plum.

Now, that is the fact as distinguished from what the governor said, and I think you will find that if you keep the politician away from the appointing power you will have no trouble in getting good men.

But there is this further fact to be considered: It is difficult to get a competent man unless he happens to be of independent means to be willing to assume the burdens of public-service commissioner, because he does not like to be hounded and blackmailed, if you please—accused of everything in the calendar, and work himself night and day to do the best he can for his State, with the knowledge all the time that a change in the political power or the expiration of his term of office means that he goes forth without honor.

And what is the result? His innermost pride is affected, because he feels that if he has done his duty well, the least reward that he could have would be a reappointment to that office, and you will find that that is very seldom done. I did not have an opportunity to meet that experience, but I presume I might have had it, just the same as many other men have had it; and that is the reason why it should be eliminated from politics. If you have a competent man there, keep him on the job. That is what I was taught in the good old days in New England, where I came from, in eastern New England—that if there was a good man in the office he was kept there as long as he lived, and if he was not good he was thrown out, and that applies to the public-service commissions.

MR. WARREN. That is the practice of our public-service commission, I am happy to say, in Massachusetts, with very few exceptions.

MR. CARR. I would not like to have the public feel that, in these days at least, the public-service corporations were using their efforts all the time to prevent good men from getting office, or that they spent their time in the halls of the legislature trying to frame up laws for their benefit, because it is not so; and I know, because I have represented corporations.

MR. WARREN. I agree with you absolutely on both of those propositions.

That is all, Mr. Chairman.

Commissioner SWEET. What is your business now, Mr. Carr?

MR. CARR. I am in the steel business.

Commissioner SWEET. In Pittsburgh?

MR. CARR. Pittsburgh.

Commissioner SWEET. You are not connected with any street-railway enterprise?

MR. CARR. I have no interest in any street railway.

Commissioner SWEET. You know something about the Pennsylvania Commission, I suppose?

MR. CARR. Nothing whatever, except by hearsay.

Commissioner SWEET. Is it not generally conceded that they have a good commission up in Pennsylvania?

MR. CARR. I have no knowledge of it.

Commissioner SWEET. You made a comparison between the horse-car days and the electric-car days?

Mr. CARR. Yes, sir.

Commissioner SWEET. And I think you said that for a nickel, in the horse-car days, a man could ride approximately 3 miles.

Mr. CARR. If he went from one end of the road to the other.

Commissioner SWEET. If he went from one end of the road to the other?

Mr. CARR. Yes, sir.

Commissioner SWEET. He was entitled, if he wanted to, to ride 3 miles for a nickel?

Mr. CARR. Yes.

Commissioner SWEET. And after the roads were electrified, he could ride about 12 miles for a nickel?

Mr. CARR. Yes.

Commissioner SWEET. From the standpoint of the rider on the street-cars, that would seem, certainly, that he was getting about 4 times as much for his nickel under the electric system as under the horse-car system?

Mr. CARR. He was getting a great deal more than 4 times as much, because he was getting a better service in the way of equipment and time and every other respect.

Commissioner SWEET. But in miles of travel, he was getting 4 times as much?

Mr. CARR. In miles of travel, he was getting 4 times as much, if he wanted that.

Commissioner SWEET. If he wanted it.

Mr. CARR. Yes.

Commissioner SWEET. Now, I would like to call your attention to the other side of that question—not from the standpoint of the street-car patron or rider on the street-car, but from the standpoint of the company operating under the two systems. What would be the relative expense to the operating company to run the 3 miles of horse car or 12 miles with electric power?

Mr. CARR. I do not know that I ever saw any statistics on horse-car traffic. I could not say how much it might cost them. It is all figured out in car-miles, in passenger-miles.

Commissioner SWEET. From that standpoint, the difference would not be anything like it would be from the standpoint of the rider on the street-car; would it?

Mr. CARR. The cost?

Commissioner SWEET. Yes.

Mr. CARR. I would say that the cost of the 12 miles on an electric line would be certainly more than 4 times as much as 3 miles of horse-car line.

Commissioner SWEET. Then, the cost per mile of electric power would be greater than the cost per mile of horsepower?

Mr. CARR. Oh, there is no question about that. There is no question about it.

Commissioner SWEET. So that, from the standpoint of the street-railway company, then, more than 4 times as much would be furnished for the nickel than in the horse-car days?

Mr. CARR. Absolutely.

Commissioner SWEET. So that, then, from both standpoints—the standpoint of the rider, he would get more than 4 times as much for

his nickel, and from the standpoint of the company, which would furnish more than 4 times as much for the nickel—there would seem to be a tremendous change after the roads were electrified?

Mr. CARR. In what way?

Commissioner SWEET. I say, from both standpoints.

Mr. CARR. Well, there would hardly be any comparison as between the two.

Commissioner SWEET. The company is furnishing four times as much for the nickel, and the rider would be getting four times as much for the nickel.

Mr. CARR. He certainly would; and of course it should be borne in mind that the capital invested per mile was almost nothing in the horse-car days in comparison with the electric roads.

Commissioner SWEET. So that when the street railroads of the country were changed over from the horse-car system to the electric system, there really was no logic or fairness, when you come right down to it, real inherent justice, in maintaining the nickel fare; was there?

Mr. CARR. Well, there was in some respects, and I think in many respects it worked satisfactorily, and the companies did get a fair return on their capital, because, with better equipment and more speedy operation and larger cars, they were able to carry a great many more passengers per car-mile, and in that way they were able to increase their earnings per car-mile; but it was the constant growth of the main body of the company—that is, the constant extension of tracks, here and there and elsewhere, to meet the expanding development of the community that began to pull the companies down. It reached a certain peak, and then it passed over that peak, on the way down. It began to give more and more and more for less money, and then the transfer system came in on top of that in many places. For instance, in the city of Albany they did not have any transfers until, I think, after 1905. They even had to go to the legislature to get transfers in the city of Albany.

Commissioner SWEET. Would it be a fair statement to say that from the inception of the electric street railways, there had been a constantly increasing service, without a proportionate increase of remuneration?

Mr. CARR. Absolutely. The nickel fare was in force in the State of New York, as I recall it, as far back as 1848. I may be wrong in my history, but I went into the thing very exhaustively, and it has been on the books for a great many years, originating in the city of New York.

Commissioner SWEET. And no jump was taken when the roads electrified?

Mr. CARR. Yes.

Commissioner SWEET. But from that time on, if I understand you correctly, there has been a tendency, as the roads have extended out and made lateral lines and have given transfers—there has been a continuous tendency to give more and more and more for the nickel?

Mr. CARR. Absolutely.

You have here the reports of the New York Commission, and if you are interested in connection with your investigation here to

read the opinion sometime that I wrote in the Huntington case, you will find a history of fares in the State of New York, going back as far as 1848—and I do not know but what it is longer—showing how the legislature, at different times, created corporations, street railway corporations, and fixed the fare when the charter was granted. That case gives the history of street railways in the State of New York, and it is very illuminating, showing that even in the old days it was considered that a universal fare was not really intended to be universal, if there were other conditions that made it desirable to fix a different fare, and the mere fact that that was stuck into the statute in later years was not, to my mind, with the intention that every street railroad throughout the State of New York and the city and the municipality should be limited to a nickel fare, no matter how much it might extend its lines in that community, but the courts have held it was so, provided that they put it in the franchise.

Commissioner SWEET. It is quite evident from what you say that you have been quite a student of this question for a number of years.

Mr. CARR. Well, many who have been in the public-utility business can answer that better than I can. They know. I have been in it a good part of my life, and until I quit the New York Commission I made a speciality of it.

Commissioner SWEET. Well, it would be, perhaps, immodest for you to admit what I have just said, but it is quite evident that that is the fact just the same, and on that supposition I want to ask you this: During the period of your acquaintance with the street-railway companies have you observed a tendency to antagonism, a sort of conflict, between the general public and the street railways on the one side, trying to get more and more for the nickel, and on the other side in trying, perhaps, in a defensive attitude, to prevent the public's carrying it too far?

Mr. CARR. I think you will find that this has been the experience, that the initiative in the development of the street railways has usually come from the corporation, which has showed a disposition to develop and extend its lines. In some instances, the initiative has been taken by the community, but in most instances I think you will find that the initiative came first from the corporation, and then there was a struggle for a franchise. I do not say that there has been antagonism, because I do not think, in the average instance, there has been antagonism. The people have wanted the street-railway lines extended, and unless there was a good deal of politics involved, as a rule the franchise for the extension was granted. In the good old days when there was a good deal of graft, so they say—I don't know anything about that—in connection with the street railway franchises; but that, as a rule, was in the initial stage of the development and before the road had been built, not so far as related to extensions, but the existing road. The municipalities usually endeavored to throw as many conditions around the construction of an extension or a new line as they possibly could, but ordinarily they set forth in the franchise the conditions that are set forth in the statutes; and I think you will find throughout the State of New York that the bulk of the franchises that have been granted

in the past 25 years, outside of the greater city, do not embody much more than the conditions attached to the franchise than are contained in the statute itself.

Commissioner SWEET. You have alluded to the political pressure that is brought to bear upon the appointing power with regard to State commissions. Under the plan advocated by ex-Gov. Foss of public ownership have you any reason to think there will be any less pressure brought to bear upon the appointing power in connection with the choice of managers and thousands of others who would be outside of the civil service or a great number who would be employed in connection with street-railroad operation?

Mr. CARR. I firmly believe that public ownership in this country will never be successful, so long as we have our present form of government.

Commissioner SWEET. You think that those charged with the duty of appointing would have pressure brought to bear upon them to such an extent that they would appoint political friends?

Mr. CARR. Well, they might not appoint a political friend so much as they would appoint men that they were urged to appoint by political friends, and then what would be the incentive? The average man that holds a political job knows that sooner or later he is going to get out.

Commissioner SWEET. That is all.

Commissioner MEEKER. How about public regulation under our present system; is it possible to work that?

Mr. CARR. I think public regulation can work, and it has worked very well. Of course, it has its evils.

Commissioner MEEKER. We have heard some pretty severe bumps handed to it to-day.

Mr. CARR. Of course, you have always to consider that some of the people that do the bumping also have their grievances.

In 1907, when the New York Commission was formed, I might say that a great many people with whom I was associated were opposed to it, but I was very much in favor of it, because I felt I saw what was coming, and I tried all I could to help make it a law in my feeble way, and I believe if you would put it to a vote of the public-service companies in the State and ask them whether they would go back to the old days, they would tell you that they would prefer to have the regulation exactly as they were having it to-day. Now, I may be wrong, but that is what they have told me.

Commissioner MEEKER. What is the difference between the politics that affects the public regulators to-day and the politics that would affect the public operators in case of public ownership and operation, or the public regulators under public ownership and private operation?

Mr. CARR. Well, all I can speak for is the commission I was with. We, in the words of the President, adjourned politics. We eliminated politics entirely from our operations.

The CHAIRMAN. Is it not true, Mr. Carr, that although some of the public service commissioners may be politicians, and they may be appointed for political purposes, yet, when it comes to the question of appointing their expert men, their expert rate men, engineers, etc., they always look for the best men in the field that can be secured?

Mr. CARR. I think that it true.

The CHAIRMAN. And is it not also true that these public commissioners very generally respect the recommendations and follow the recommendations of their expert forces in matters coming before them?

Mr. CARR. I think it is.

The CHAIRMAN. Is not that the answer to the situation?

Mr. CARR. It is largely, except that I do not like to see a man in a regulating position that relies on his subordinates for his knowledge or for his action. I think a man who is a commissioner and holds that important position should be the man that takes the responsibility.

The CHAIRMAN. Oh, sure. There is evidence on both sides; but where there is a conflict of testimony he has to pay a good deal of attention to the recommendations made by the men he hires and who, in his judgment, he can absolutely depend upon.

Mr. CARR. That is absolutely true.

Commissioner MEEKER. Would it work any differently under public ownership? Is the difference really one of degree or one of the size of the job, or is there some sort of difference between public ownership and public regulation?

Mr. CARR. Well, that is a very difficult question for me to answer.

Commissioner MEEKER. Well, you have had more particular experience on that particular point than anybody that has yet appeared before us. You have served on a public-service commission, and you have been actually engaged in operating public utilities, as I understand.

Mr. CARR. Well, there is a difference, as you can readily see. If there was a question of public ownership, what would enter into it? What would be the function of the regulator then? And what would bring up the questions as to regulation; who would bring them up?

Commissioner BEALL. Is it not one of the answers, Mr. Carr, that in a large or fairly large city, instead of five commissioners or three or seven, or whatever it may be, you have a certain commission of regulators, and they perhaps employ thousands of men?

Mr. CARR. Yes.

Commissioner BEALL. Each one of those thousands of men have members of their family and friends who are all pulling for their relative's advance, so that the men who regulate under municipal control would be harassed by people wanting some friend appointed or his pay increased, or some favor granted, and that is a hundred times more influence than there would be in the case of a public service commission, is not that true?

Mr. CARR. Yes; I think that would be so.

Commissioner BEALL. That is just one basis of the difficulty?

Mr. CARR. The whole thing is so interwoven that when you make an analysis of it, it opens up such a tremendous subject that it is extremely difficult for me to say what would or would not happen. I draw my conclusions from my observations.

Commissioner BEALL. Well, is it not true that if you were on a commission and were running a property, for instance, for a large city, instead of having just one assistant secretary to appoint, as

happened at one time, there might be a thousand positions to be filled?

Mr. CARR. That would all depend upon how large the community was.

Commissioner BEALL. Well, I am considering everything, of course—conductors and motormen, and clerical force.

Commissioner MEEKER. You may have civil service with public ownership and operation.

Mr. CARR. Civil service is all right, as far as it goes, as long as it gets the man to do the work he is supposed to do, but he does not seem to have the initiative that he does when he works for a private corporation.

The CHAIRMAN. You are excused, Mr. Carr.

Mr. WARREN. I am much obliged to you, Mr. Carr.

STATEMENT OF MR. RICHARD SCHADDELEE.

Mr. WARREN. Will you give your full name, Mr. Schaddelee?

Mr. SCHADDELEE. Richard Schaddelee.

Mr. WARREN. Are you in the street-railway industry?

Mr. SCHADDELEE. Yes, sir.

Mr. WARREN. And what position and with what company?

Mr. SCHADDELEE. Well, I have the general supervision of the management of several street-car companies and interurban companies.

Mr. WARREN. Where are they located?

Mr. SCHADDELEE. They are located in Illinois, in Ohio, and in Michigan.

Mr. WARREN. Is there a public-utilities commission or regulating commission in each of those States?

Mr. SCHADDELEE. No; only in Illinois and Indiana. Well, there is one in Michigan also, but the commission of Michigan has no jurisdiction of rates of utilities, except where there are no existing franchises.

Mr. WARREN. And have you any existing franchises in connection with your companies in Michigan?

Mr. SCHADDELEE. Well, we have no street railways in Michigan; only interurbans. Now, in Michigan, the legislature has not the power to regulate the rates of interurban railroads.

Mr. WARREN. The commission has not?

Mr. SCHADDELEE. No, sir; because the constitution of Michigan has a provision that does not permit the legislature to delegate to any commission the power to regulate the charges for the transportation of persons.

Mr. WARREN. Then we will drop Michigan.

Mr. SCHADDELEE. Yes.

Mr. WARREN. Because that is not in the case. Now, in Illinois the commission has authority to regulate rates?

Mr. SCHADDELEE. Yes, sir.

Mr. WARREN. And in Indiana it has authority to regulate rates?

Mr. SCHADDELEE. Yes, sir.

Mr. WARREN. Have you had occasion to appear before both of these commissions on matters of rate regulation?

Mr. SCHADDELEE. Yes, sir.

Mr. WARREN. More than once?

Mr. SCHADDELEE. Yes, sir.

Mr. WARREN. And what has been your experience with the regulation of rates in each of those States? Take them up in any order you please, with particular reference to the length of time that it has taken to get decisions, and anything else that you think ought to be called to the attention of this commission.

Mr. SCHADDELEE. Well, Mr. Warren, I have prepared a paper here wherein I cover that. Possibly I had better read that to the commission. Then they will know just what the experience has been. Otherwise we might have repetition here.

Mr. WARREN. Well, if it is not long. If it is, I would like to ask you to summarize it, taking the prominent features of it. You can do it better than I.

Mr. SCHADDELEE. Well, I think I can read it here, and I think everybody will know something about our experience and also something about our ideas about commission regulation.

Mr. WARREN. All right; you may go right ahead.

Mr. SCHADDELEE. Mr. Chairman and members of the commission, I have never held public office. I do not aspire to have public office. Hence, I will address myself to you and not to the proletariat on the floor, because they know more about these matters than I do.

Mr. WARREN. I hope you are not reflecting on any fellow-citizens of mine from Massachusetts, Mr. Schaddelee. [Laughter.]

Mr. SCHADDELEE. During February, 1918, the President, the Secretary of State, and the Comptroller of the Currency of the United States issued an open letter urging the various rate-regulating bodies to give prompt and adequate relief to the utilities under their jurisdiction, where need for relief was reasonably shown. The primary purpose of these appeals by the Government was to enable these utilities to function efficiently and adequately in response to the enormous increased demand for utility service caused by the conditions created by the war. The Government realized the vast importance of this in its prosecution and winning of the war.

Previous to this time the utilities as a whole had patriotically and enthusiastically responded to the demands for increased service and facilities, and many had strained their credit to or beyond the breaking point in raising the vast sums needed for additional service, facilities, and equipment. The interests of the investors were relegated as of secondary importance to the winning of the war and to patriotic duty.

In August, 1918, a street-car company filed with a State commission a rate schedule providing for a 6½-cent car fare to replace the existing 5-cent fare. After a so-called valuation of the visible physical assets of the company by the engineers, a long-drawn-out audit of the books by the auditors, and after several hearings the commission finally decided, on July 9, 1919, that the company did not need relief.

Mr. WARREN. When was the petition filed?

Mr. SCHADDELEE. The petition was filed in August, 1918.

Mr. WARREN. That was about 11 months back?

Mr. SCHADDELEE. Yes; a little over 11 months. Thus the idea of promptness of this commission in a decision in one year's time from filing of application, and its idea of adequate relief is no relief at

all. This is given merely as a very recent illustration of the failure of some commissions to be responsive to even national emergencies. The street railway company in question, however, spent during 1917 and the first six months of 1918 a quarter of a million dollars for new cars and additional equipment to take care of the war needs of the community, which resulted in the manufacturers being able to take on all war contracts secured. The company considered the needs of the Government and the community first, trusting in the fairness and justice of the commissions to give it prompt and adequate relief in the matter of rates. Some commissions' laws make it mandatory for the commissions to inquire into the reasonableness of rates and the conditions of utilities, on their own initiative, while others empower the commissions to initiate investigations. I do not know of a single case where a commission has ever exercised this initiative power.

The failure of commissions and other rate-regulation bodies to adequately protect utilities and grant them the relief necessary to enable them to maintain good and adequate service, as exemplified by the present condition and future prospects of the electric railways is, in my opinion, due to the personnel of these commissions, their manner of appointment, and the influences they are subject to much more than the laws themselves. The object of the people in passing these laws through the legislatures of the various States was to insure the public good and adequate service at rates reasonable and fair to both the customers of and the investors in these utilities. Ultimately, a fare that is not adequate or fair to the utility is not fair or adequate to the public, for the reason that an inadequate fare results ultimately in inadequate service and facilities.

I am sure the American people desire that the utilities serving them shall be empowered to collect a charge or fare that will enable them to earn their fair and reasonable operating expenses, taxes, depreciation, etc., and in addition a sufficient rate of net return on their investment to make the investment in street railways attractive to the investor. The people know that only on that basis will the street railways be able to extend and improve their properties, and have them keep pace with, or abreast of, the growth of the communities, and the increasing demands of the public for more adequate and superior service.

Previous witnesses have given your committee a comprehensive statement of the present deplorable conditions existent in, and the even more alarming future confronting the electric-railway industry. They have reviewed the many factors that are responsible for this present status.

The program committee, as I understand it, desires me to analyze the basic reasons as to why the various regulating bodies, especially the State commissions, have failed to accomplish the objects for which they were created, viz:

First. To regulate these companies in such a manner as to enable them to continue to render reasonable and satisfactory service to the public.

Second. To enable them to obtain the money needed to make extensions and improvements required by the growth of the communities and the increasing use of service by the public.

Third. To enable them to earn a reasonable return on their investment.

Of all the factors to which the present critical condition of the electric lines has been attributed there is only one against which the commissions can not afford us protection. This single exception is the competition of the private automobile, and this factor is the one that, in my opinion, is least responsible for our critical illness. The automobile has fastened the riding habit on the public, has accustomed it to rapid transit and thus has been rather beneficial to us than otherwise.

The electric lines which I am connected with or have knowledge of are collecting more street-car fares now than ever before. Our gross business is very satisfactory and will continue to increase if we receive enough money to restore our credit with the investors.

The electric railways are not sick and will not die by reason of being economically or evolutionarily obsolete, or superannuated, nor by reason of natural decay. If these were the causes of our illness, or if we were threatened with extinction by a superior mode of locomotion that can better perform our functions under the same restriction as to fares, and under the same requirements as to service, taxes, etc., then in that case it would be useless to ask or request for relief. For no private interests can successfully resist real economic evolution.

Electric railways are now more necessary to, and enter more intimately into the social and industrial life of our urban, suburban, and interurban population than ever before, even if a small percentage of this population is not now as exclusively dependent upon electric-railway transportation as it was 10 or 20 years ago.

The automobile has been a great factor in relieving congestion in cities by encouraging suburban and interurban residence. These people feel that the automobile makes them independent of the electric lines, yet they will use them habitually, using their car or our cars as their convenience or caprice dictates.

No, gentlemen, the present critical illness and the impending death of the electric lines are not due to natural causes.

We are ill, even unto death, entirely by reason of an artificial cause and that is: Insufficient financial nourishment.

If you agree with me so far, especially as to my diagnosis, then you will also agree with me that there are two remedies that can effect a permanent real cure, viz:

First. An adequate increase in the quantity of our financial nourishment, or,

Second. An adequate decrease in our output of energy, which means in our service.

A cure is possible by an adequate increase in our fares alone, but if a decrease in service is to be employed as a remedy, it must be administered in combination with an increase in fares in order to effect a real cure.

A man who suffers from lack of sufficient food does not need medicine. He needs a sufficient quantity of food. That is what we need and must have if we are to survive.

State commissions were established because the people were dissatisfied with the results of utility operation under franchise restrictions or under regulation by local municipal councils.

The people did not enjoy the spectacle of these franchises or the regulating ordinances of their councils being made and dictated largely by local political and factional interests. The American people, especially the American workingmen, are intelligent and have a passionate desire for fairness, justice, and fair play, and they can be depended upon to be on the side of right and justice once they thoroughly understand the merits of a controversy or proposition.

They do not like to see a purely economic problem, affecting their personal and vital interests, degenerate into a political problem and become a political football.

Whatever the intent or motives were of the legislature who enacted these laws, I am convinced that I have stated accurately the motives and intent of the large majority of the people.

The people knew that the political manhandling of utility problems nearly always inflicted injustice upon either the public or upon the utility and often upon both.

They were convinced that no *modus vivendi* could be thus established that would be fair and equitable to both parties.

Regulation of utilities was necessary, the people felt, not only for their own protection but also for the protection of the utilities.

The people were convinced that such regulation must be done by men possessing the experience, education, judicial temperament, integrity of character, and absolute fearlessness necessary to intelligently and justly exercise such regulatory power. Therefore, the people established these State commissions with practically unlimited power and authority over the utilities.

I am sure that your committee is now convinced that these commissions as a whole have wholly failed to live up to expectations and the intent of the people in establishing said commissions.

Inasmuch as the commissions were given unlimited authority, they must now assume full responsibility for their failure. No man accepting authority can escape or deny responsibility. The one implies the other.

We must now examine into the reasons of the failure of these commissions to attain the object for which they were established.

The CHAIRMAN. The commission feels that it will derive just as much benefit from your testimony if you will file your statement.

Mr. SCHADDELEE. All right.

The CHAIRMAN. And then just tell us briefly what your experiences have been in dealing with the commissions.

Mr. SCHADDELEE. All right. That is very satisfactory.

The CHAIRMAN. I think that will work out very well and give you a double whack at it.

The statement continues as follows:

Before doing so, allow me to emphasize that throughout my entire paper I have in mind those companies that are well operated, economically managed, and honestly financed. It is not my intent to hold the commissions responsible for utility companies' ills that are due to inefficient management or reckless financing.

The results of these must be borne by the companies themselves, and it is the duty of the commissions to see that the people are not made to suffer from them. If there are any such companies, I am sure they are very few in number and need not be considered here.

The failure of the commissions to function effectively is due to many and widely different causes.

All commissions have done some good work and there are many able, conscientious, capable, and fearless members on these commissions.

I have no grudge against any individual member of a commission nor are my criticisms or remarks addressed to the commissioners as individuals.

I am considering each commission as a separate body and all the commissions together as one unit.

Also, I am convinced that the failure of the commissions can not be laid at the door of any individual commissioner. We are not dealing in personalities. We are dealing with complete governmental bodies or departments, if you will.

The main reason for the failure of the commissions to function effectively is the fact that they have not been immune from political influence as the people expected they would be.

This summer, in at least two States, to my personal knowledge, numerous bills were introduced to either abolish these commissions or otherwise to greatly curtail their power. In one State the commissioners were compelled to defend themselves against the most ridiculous charges prepared against them by municipal officials and contemptible, self-seeking politicians.

The mayor of one city bitterly and unjustly attacked the commissioners, and then sought reelection as mayor shortly afterwards, appealing to the people to vote for him and he would see to it that the commission would be abolished, that car fares would not be raised, etc.

In the primaries this man was snowed under, being the low man of three candidates. Which indicates how the people feel about these matters.

These commissioners are but human. As a rule they like to retain their positions, and under the conditions cited they can not be expected to make purely judicial decisions, without fear or favor.

If they are to function effectively, they must be absolutely removed from political influence and they must be secure in their tenure of office as long as they execute their duties ably, justly, and fearlessly.

Under present conditions the commissions have no backbone, they have no courage, they are not free agents. They are much more influenced by what the local politicians and officials are saying than by what the people are thinking.

They hear the vaporings of designing politicians, but they do not know what the people are thinking.

The local politicians themselves are usually entirely wrong as to what the people desire in these matters, as they are much more influenced by what 50 people tell them than by what 50,000 people do not tell them. The great majority of the American people do not spend their time telling local politicians what their ideas are on these subjects.

The local politicians are usually wrong in their interpretation of the people's attitude on these matters and the commissioners are unduly influenced by the local politicians.

The commissions show by their actions and decisions that they are consciously or unconsciously dominated by the theory that their duties are much more largely toward the people than toward the company, and that the people established them mainly as rate-reducing bodies instead of rate-regulating bodies.

Rate increases were practically unknown before the war and the habit of reducing rates like other habits is not easy to break.

Rate reductions have been made with more alacrity than rate increases.

Reduced rates are put in effect for indefinite periods. Rate increases are authorized for one year or for six months, and the companies are required to file quarterly or monthly statements with the commissions and with the municipalities, so that as soon as the company shows its head above water, a properly administered kick will again submerge it.

These conditions have paralyzed all incentive to economy in the utility business, and no staple financial conditions can be created until they are remedied.

The biggest handicap to a utility is to appear before a utility commission with a record and data showing effective operation and careful, economical management.

You will receive verbal commendation but a lower rate than another company not so well operated or managed.

There is really now no incentive to economy, nor any incentive to spend efforts and money to stimulate expansion of the business.

If you spend money in improved equipment to effect material economies in operation, and thus increase your rate of return over the 6 per cent or 7 per

cent allowed you, the commission will eventually confiscate this excess and maybe more, and will also confiscate part of the capital you have invested to procure these economies, fixing a so-called depreciated value on the property representing this capital.

In applications for increased fares or rates the commissions examine too much in the past and not enough in the future or present.

They are willing to base their decisions on anticipated decreases in the cost of labor and material, but never on anticipated increases in the cost of these items.

They apparently do not realize that a man's condition during the last year or last five years does not affect his need for prompt treatment and relief if he is sick now. If a man is hungry to-day you can not withhold food from him, while you spend six months or longer investigating whether he had sufficient food during the last year or last five years.

Yet, that is the usual method of commission procedure. That was the basis of the decision I mentioned at the beginning of my paper.

Neither they nor the War Labor Board seem to understand that there is a physical law which is also an economic law, viz, that the total outgo can not be in excess of the income. That is the reason we denied the right of the War Labor Board to fix the wages we shall pay unless they or some other authority can at the same time regulate our income to enable us to pay the increased wages.

Yet my sympathies are all with our workingmen. They have been and are now in the same position as we are, or nearly so.

The local authorities and the commissions must be made to realize that if they withhold prompt and adequate relief from us, they are also withholding prompt and adequate relief from our workingmen and all of our employees.

They must be made to realize that commodity prices have not yet reached the top, and that, under our economic system, the price of labor follows the upward trend of commodities and does not precede it, while on the downward trend the reverse is true. So we are facing increases in the cost of labor; labor must have and is entitled to increases, and both the people and their representatives, as well as labor itself must recognize that the real employers of labor who must pay these increased wages are the patrons of these utilities.

The duties of commissions to the utilities and to the people are not fulfilled if they allow them enough to keep the breath of life in them; if they allow them not enough to live and too much to die.

They must be liberal in the rate-making basis they fix for them, liberal in the rate they allow them; prompt in granting relief where reasonably shown it is needed, and then exact first-class service and all necessary improvements and extensions.

The utilities and capital will respond to this kind of a program and the people will support it. The fact that a commission decides that a 6 per cent or 7 per cent investment is reasonable does not compel an investor to accept that view and cause him to invest his money on that basis.

Commissions have apparently acted on the theory that if they say a 6 per cent or 7 per cent is reasonable that this became law to the investor.

Neither the commissions, nor the legislatures, nor Congress, nor the courts, nor the President, can compel the flow of capital in directions where capital does not desire to go.

This is also an economic law that the commissions must take cognizance of and act upon. The solution of our problem lies in the establishment of mutual confidence between, not only the people and the utilities, but also between the commissions and the people. The spirit of mutual confidence must pervade the relations of all these three parties.

If both the companies and the commissions will cultivate closer relations with the people and take them into their confidence our problems will be finally solved and solved right.

I have great confidence in the common people and their high sense of justice and fair play, but very little in the political demagogues that infest every community in a more or less degree, either holding or aspiring to office.

Where there is real antagonism on the part of the people against the utilities, the blame can be put usually on political demagogues or on the companies themselves, or on both.

The politicians, demagogues, and newspapers often succeed in inciting hostility in the people against certain utilities when there is no real reason for

such hostility. This is because they talk to the people very much and the utilities talk to the people very little.

The utilities and the commissions are more influenced by the politicians than by the people, because the people in these matters are inarticulate, while the politicians are very much articulate.

Mr. WARREN. What was the name of the company that you refer to, Mr. Schaddelee?

Mr. SCHADDELEE. Of the railway company?

Mr. WARREN. Yes.

Mr. SCHADDELEE. They were the Tri-City Railway Co. of Illinois and also—there are two companies involved, although they are owned by the same people, the Moline Eastern & Rock Island Traction.

Commissioner BEALL. Were you with the company when it was the old Davenport, Rock Island & Moline?

Mr. SCHADDELEE. No.

Commissioner BEALL. Now called the Tri-City?

Mr. SCHADDELEE. No. There are two companies existent now. I am talking about two companies now.

Commissioner BEALL. The Tri-City used to be the Davenport, Rock Island & Moline, years ago.

Mr. SCHADDELEE. That was before I had any connection with it.

Mr. WARREN. How long have you been connected with these companies?

Mr. SCHADDELEE. We have owned those companies since 1912.

Mr. WARREN. And the commission to which you referred was the Illinois Commission?

Mr. SCHADDELEE. Yes.

Mr. WARREN. Have you had any other similar experience with the Illinois Commission involving what seemed to you unreasonable delay in a rate question?

Mr. SCHADDELEE. Yes. We have had questions of increased rates on gas and electricity that were, in our opinion, unnecessarily delayed.

Mr. WARREN. How long were they delayed? I mean how long did it take to get the decision from the time you filed the petition?

Mr. SCHADDELEE. Well, I do not remember in the gas case. It must have been over six months.

The CHAIRMAN. Has that been during the war time?

Mr. SCHADDELEE. Yes.

The CHAIRMAN. Is it not a fact that most all gas and electric and railway utilities have been applying for increased rates from the Illinois Commission and other commissions during the war?

Mr. SCHADDELEE. Yes, sir; a good many of them have.

The CHAIRMAN. And do you know whether they have been simply overwhelmed with the number of applications and hearings?

Mr. SCHADDELEE. That is true.

The CHAIRMAN. In view of that fact, do you think that they have been unduly tardy in making the decisions in which you have been interested?

Mr. SCHADDELEE. Yes, sir. I believe that under the emergency existing that the utilities commissions could very well and properly have got us rates without going into all this question of physical valuation, and in this case they spent months and months.

The CHAIRMAN. Did the Illinois Commission make a valuation of your properties before they decided it?

Mr. SCHADDELEE. Yes.

The CHAIRMAN. In the war times?

Mr. SCHADDELEE. Yes.

The CHAIRMAN. In each case?

Mr. SCHADDELEE. Yes.

The CHAIRMAN. How long did it take them to fix the value of your property?

Mr. SCHADDELEE. Well, we had our hearing in our railway-fare case completed in about six months, and then it took them six months, apparently, to digest the information and write up the opinion. Now, the question is, you know: What would you think of a doctor who would take a year for him to find out whether you were sick or not when you applied for relief and medicine?

The CHAIRMAN. What relief did the commission grant you?

Mr. SCHADDELEE. None at all; and the reason they did not grant us relief, they found that, during the last five years and during the calendar year 1918, taking the year as a whole, that we had been in fairly good condition.

The CHAIRMAN. Had you laid up a large surplus?

Mr. SCHADDELEE. No; not a surplus; but they said that we had earned—the first thing they did, they reduced our valuation. They cut down the depreciation that their own engineer had figured and gave us 2 per cent depreciation on a street-railway company. And notwithstanding the present high cost of materials and labor; and of course, by sufficiently reducing the depreciation allowance and reducing the valuation of the property, you know, you can always finally arrive at a figure where you earn nothing on it.

Now I tell you, I don't blame these commissioners so very much for that; but the trouble, you know, with these commissioners is that they are not secure in their tenure of office. In my opinion these commissions can never function properly unless they are appointed for life like Supreme Court judges are, so they will not be afraid of losing their job. Unless they are financially independent they can not help but be subject to local political influence, and in my opinion these commissioners as a rule, as bodies, are much more influenced by what they hear from local politicians than what they can learn from a stack of evidence you present to them a mile high.

The CHAIRMAN. Is it true that there was a very considerable agitation sprung up in Illinois during the last year for the abolishment of the commission, due to the large number of increased fares that they had granted to the companies?

Mr. SCHADDELEE. No; I do not believe that had so much to do with it. There has not been so much increase in fares. The only thing they have given us is a small increase in gas rates and no increase in street-railroad rates at all. No; the trouble with the commissions down there is some of the contemptible politicians and demagogues who had made unwarranted charges and attacks against some of the members of that commission which were entirely untrue and false. And I want to say that those commissioners were called upon to defend themselves before the Legislature of Illinois against those charges of these men. These men are not free agents in considering the question of regulation any more.

Another thing, in Illinois there is to be a constitutional convention next October, and the home-rule advocates are just laying for that, and their idea is to frame that constitution in such a way as to abolish the commission; and the commissioners know that, and are afraid they are going to lose their jobs.

The CHAIRMAN. The home-rule people are going to insist upon franchises with a maximum fare of 5 cents; are they not?

Mr. SCHADDELEE. I do not know about what their idea of the maximum fare is to be at all. But now that is the situation. You can not blame them. You take a man that is not financially independent, with a fairly decent job, and a family to support; he knows that if he does his duty fearlessly he is in danger of losing his job by the machinations of those politicians. You can not blame him if he is a little bit careful about the exercise of his power. I would not blame him very much. But that is the proposition. You have to put these men in for life, in my opinion, and it would be still more desirable if you could appoint men on these commissions if they were from some other State.

Mr. WARREN. Your remedy would be to appoint them from another State for life and the opposition want to abolish them altogether?

Mr. SCHADDELEE. Altogether; yes, sir.

Mr. WARREN. Which do you think is more likely to prevail?

Mr. SCHADDELEE. Well, I am not telling you which is more likely to prevail. I am just telling you something of the things that are necessary if you are going to have courageous and fair and just regulations.

Mr. WARREN. Supposing that you can not get the appointment for life, is there any other suggestion you could make that would produce what you consider a more satisfactory situation?

Mr. SCHADDELEE. Well, it is pretty hard to suggest any other way than by removing the political factor.

Mr. WARREN. Are they appointed by the governor?

Mr. SCHADDELEE. Yes.

Mr. WARREN. They are not elected by the people?

Mr. SCHADDELEE. No; they are appointed by the governor.

Mr. WARREN. What is their term?

Mr. SCHADDELEE. I think their term is four years, as I remember it.

Mr. WARREN. Now, this is the Illinois Commission you are discussing?

Mr. SCHADDELEE. Yes.

Mr. WARREN. Have you had any other street-railway case before that commission?

Mr. SCHADDELEE. No.

Mr. WARREN. How about Indiana—have you had any rate case there?

Mr. SCHADDELEE. We had electric rate cases there, but no street-railway cases in Indiana.

Mr. WARREN. What was your experience there?

Mr. SCHADDELEE. Well, our experience has been a good deal like it has been in Illinois; that the first thing when you tell them you are sick they say, "We will have to investigate and see whether that is true or not." Then it takes them a long time to find out whether you

are sick or not; and in the meantime the patient is getting worse all the time and it takes more medicine to make him well again, and the longer you wait the worse it gets.

Mr. WARREN. Have you had any rate cases in any of these States during the war in which relief was given you without any valuation and appraisal?

Mr. SCHADDELEE. No.

Mr. WARREN. You had had an appraisal in every case?

Mr. SCHADDELEE. Yes.

Mr. WARREN. Could you tell this commission what the shortest time was in which any decision was rendered?

Mr. SCHADDELEE. Well, I do not remember, but I am sure we never had any decision in less than six months' time.

Mr. WARREN. Nothing less than six months?

Mr. SCHADDELEE. No.

Mr. WARREN. Is there anything else you want to suggest apart from what is in your paper?

Mr. SCHADDELEE. Yes. There are some things I would like to call to the attention of the honorable commission.

One of the wrong policies of these commissions, you know, is the fact that when they are asked to increase the rates they are concerned a whole lot with the past but very little with the future, and very little with the present. Now, you know a man's present needs are practically not influenced by his past condition. Because a man was a millionaire six years ago, if he is hungry to-day he has got to have food now, and the fact that he was a millionaire two or three years ago will not appease his hunger now. They do not realize that, apparently. They also do not seem to realize the very simple economic law, which is also a physical law, that the outgo can never exceed the income. But they seem to have the idea that the public utility men are much smarter than anybody else and that they can evade those laws.

There are some things that were said here that I do not agree with, and I just want to give you gentlemen some other ideas and some new ideas about a few things.

You have heard a lot about the jitney competition. Well, we have had jitney competition in past years, too, and the only reason that we had that competition is because the politicians and the public officials allowed those jitneys to compete with us on an uneven and unfair basis. I am not afraid of jitney competition if you put on those jitneys the same burdens you put on us; not a bit. I told one of our council when they had the jitney competition up, I says, "I will stop the street-cars for a month if you say so, and let the jitneys do all the business. Then we will stop the jitneys a month and we will do it all. You can be your own judge as to which is the better mode of transportation.

You know what we want is justice and fairness, and jitneys or any other mode of locomotion is a revolutionary mode over our system of transportation. We can not prevent that going into effect. There is no private enterprise that can oppose or retard to any extent the working of an evolution in transportation. We might just as well lay down, but I do not want to lay down unless the competition is fair.

Mr. WARREN. Is there any regulation of jitneys there?

Mr. SCHADDELEE. Well, the court has regulated them out of business.

Mr. WARREN. The courts have?

Mr. SCHADDELEE. Yes; and that is another thing where the commission failed to do its plain duty under the law. The Illinois law says that nobody engaged in the transportation of persons in Illinois can engage in that unless they first have a certificate of convenience.

Mr. WARREN. From the commission?

Mr. SCHADDELEE. Yes, sir; and that is the duty of the commission—to enforce that law. They never made any effort to enforce it. Finally we got them after long work, and after keeping at it all the time; they finally issued an order telling them to desist. Do you suppose they desisted? Not a bit. They increased. They did not care for it—they were nothing but a lot of outlaws—and as long as they could operate as outlaws they could stay. The minute they were compelled to abide by the law they could not live. Any outlaw can live as long as nobody interferes with him.

Mr. WARREN. What did you do—go to the court and get an order to enforce the commission's order?

Mr. SCHADDELEE. Yes; we got a blanket order. I do not know if any court has ever issued an order of that kind, but we got it. And there are no jitneys now and there won't be any more down there. If they do come, we will take care of them.

The CHAIRMAN. Do you not think it was a good thing for the people to be fed on jitneys for a while so as to have the full experience?

Mr. SCHADDELEE. Well, I had no objection to their being fed, but we had objection to the nourishment to feed them being withdrawn from us; that is what we objected to. Those jitneys, you know, in the wintertime when the snow was on the ground—there would be 2 feet of snow on the ground and the jitneys would not run until we had cleared the snow from the streets, and then the jitneys would go right ahead of our street-cars and take all our business away from us, and then they say the street-car company has a competitor. That is a fine competitor, that is.

Now, another fallacy that a lot of people seem to be laboring under is that the people of the United States are opposed to increased railway fares, increased gas and electric rates. There is no such thing at all; it is not true at all. They are not opposed to it. The politicians are opposed to it. We had a case of a popular election to get a 6-cent fare, and carried it in Grand Rapids, Mich. I am not connected with the railways there and have no interest except to pay my fare when I use their cars; but the commission down there happened to have some courage, and when the company made application for an increased street-car fare they had a perfect right to pass the buck on to the people, but they said, "No, the price of coal has been raised, the price of everything, of furniture, of meat, of bread, everything has been raised, and the people did not have to vote on that. The utilities did not have a vote when the price of coal was raised, not at all." So this commission said, "Well, why should this poor street-car company go to the people and have the people vote whether they shall have an increase?" So they said, "We will do it

ourselves," and passed an ordinance giving the street-car company a 6-cent fare. All right. Then some of these municipal-ownership fellows got busy; they started a petition. They wanted to have that under the referendum provision of the Grand Rapids home charter referred to the people, but they could not get enough people to sign it, so they dropped their petition.

Commissioner BEALL. No; they reduced the fare, did they not?

Mr. SCHADDELEE. No; that was later on. The present commission has had some changes since that happened last fall. I live in Grand Rapids. I know what is happening in Grand Rapids.

Now another thing I want to tell you. In Cadillac—

Mr. WARREN. When you refer to the commission in Grand Rapids do you mean the State commission?

Mr. SCHADDELEE. No.

Commissioner BEALL. This was the State commission. They reduced it afterwards.

Mr. SCHADDELEE. For a month only, as a trial.

Commissioner BEALL. Well, we do not know what it will be.

Mr. SCHADDELEE. Well, I know what they did. They said it was for a month, they were going to try the 5-cent fare in order to see whether the theory that under a 5-cent fare people would ride much more often would be true, or the increased riding would compensate enough to take care of the earnings that they got under a 6-cent fare. That is what they are trying out. They are going—

Mr. WARREN. Was this the same commission that raised it?

Mr. SCHADDELEE. Well, it was somewhat the same commission, but there have been some changes which have taken place.

Mr. WARREN. There has been an election between?

Mr. SCHADDELEE. Well, there has not been an election, but there are commissioners down there and they have some rights among themselves to change the powers of the commission. One of the men who is quite dominant down there has always been opposed to public-utility companies, and I think he is responsible for it. But the people would not sign in sufficient numbers to have it subjected to the referendum.

We had another experience in Cadillac, Mich., where we had a franchise for \$1 gas. A year ago the people voted us a new franchise for 30 years giving us 25 per cent increase in gas rate, and we carried that franchise 9 in favor to 1 against that franchise. That gives another indication how the people think about it. And last week, or two weeks ago, the city commission of Cadillac gave us another 25-cent increase in gas rate, passing an ordinance giving us another 25-cent increase in gas rate, and the commission had advertised and invited everybody who was opposed to giving us another increase to appear before the commission and voice their objections to it; and when they had their meeting there was one man appeared, and he had no objections, so they passed it.

The American people—you know, I have an awful lot of faith in the American people. If you leave them alone, the American people will never knowingly do an injustice to you or anyone else. And if the idea of the commissions is that the way they have treated these utilities is in line with the desires of the American people, then I say that that is a libel on the American people. The American people are all right, but when they are debauched by a lot of

designing politicians who are used to having too much vocal exercise and not enough physical exercise then there is no telling what those American people may do; but they will never do you an injustice knowingly or designedly—I don't believe. They have never done it to me.

Now, we had here in the Michigan Legislature—I want to relate to you some of my experiences there and my views on that in opposition to some other views I have heard here expressed. In Michigan, the interurbans were confronted with the fact that they were limited to 2 cents a mile under the State law that was passed many years ago, so that the only way that those interurbans could get relief was by a direct action of the legislature itself. When the legislature met last fall we went down to Lansing—I went down to Lansing, and that was the first time I had ever been in the State Capitol in Lansing. We had operated utilities for many years in that State, and it was with great deprecation that I went down there to talk to these men. But when I came there, the first thing I saw at night was a sign in big electric letters, "Welcome." That shows you how they received me. Well, later on I found that the "welcome" was meant for the soldiers, but it encouraged me anyhow.

Well, I went right to the legislature. I appeared before the house committee, and everybody said, "You can not pass a 2.5-cent fare or any increased fare through this legislature against these home-rule men. It can not be done." When I said that we intended to pass a 2.5-cent-fare law and also intended to have the legislature relieve us from some of these franchise contracts, you know, like 1.5 cents and 2 cents, they said that could never be done; but it has been done, and it is done now, and the legislature not only passed the 2.5-cent law in Michigan with a great majority in both house and senate, but they have also passed a law specifically repealing all these franchises and what they call contractual provisions.

When I was talking to the house committee they said, well they were all convinced that we needed the relief, the interurbans did, but they said it would be impossible to pass that law and abrogate and void those contracts. Well, I says, "That is schoolboy talk. For if you say that we need the relief, if you are convinced of that, then it is your duty to give it to us. And now you say you propose to pass a law that will make it impossible for us to get that relief." Now, you know no sensible men would talk that way, and they were sensible men and they put it through.

Now those men needed information, and we gave them information and I did not apologize to anybody for appearing on the floor of that legislature, and I don't intend to do so either. It was our duty to protect our investors, and no man need to be ashamed of going to any legislature to protect his company and the interests that are entrusted to him. It is his duty to do it and no legislature will be mad at you if you do it; don't you worry about that. They all listened to me and they got a lot of information; and that is what they needed and that is what the commissions need. Here is what they have said: They say the public-utility people must get in closer touch with the people. That is true, but the commissions must get in closer touch with the people and not listen so much to the vamping of those politicians, but listen to the people themselves.

We had an occasion in Rock Island where the mayor, who had been mayor for many years, so many at least that my memory is not long enough to remember when he was not—but he had been mayor for a good many years, and he was the main man in attacking this company because we had an application asking for increased rates, and he attacked it most violently. Then he had to run for mayor and he was on the platform that “if you will elect me I will see that the street-railway company gets no increase of fare and no increase in electric rates and no increase in anything, and that they will spend a lot of money in extending the line.” That is the kind of a platform he ran on. And in the primaries he was low man of three men running. That shows you how the people resent that. The people are changing their minds about some of these things. If you can convince the people that you are honest, that you are true to them, that you are running your business in an economical way like every business ought to be run, and if they believe that they will stand by you. But I want to say it is a very hard thing to make them believe that sometimes, and the reason it is hard to make them believe that is because a lot of the other fellows are telling them just the opposite way, and it is true that these men talk very much to the public and usually the utilities people talk very little to the public, so they get a whole lot more in their ears from the other side than they do from the public-utilities side.

Mr. WARREN. Is there anything else on your list about street railways that you want to call to the commission's attention?

Mr. SCHADDELEE. There are some other items I can touch upon. Our street-car business is not going to pot, you know. The people are more dependent upon street-car transportation than ever before, and I think the automobile has been a lot of help to us on that. The automobile has given people the habit not to walk, and that is the reason they use street-cars when automobiles are available. Our gross business is all right. We have no doubt about our gross business, but what we need is a higher rate of pay for the business, because we are not like the Jews—that can run a big business at a loss because they do so much of it.

Another reason a good many street-railway companies are not yet in bankruptcy is due to the fact that there are some strong holding companies standing back of them and they are putting the credit behind those companies; that is, they are holding a lot of them up, and if they were standing on their feet there would be a whole lot more bankrupts than there are now. That is another thing you have to consider.

In regard to municipal ownership, I might say this. You know that this gentleman this morning—I was afraid he was going to be so enthusiastic that he was going to advocate municipal ownership of his own business, but, as usual, he stopped before that. But he is not very radical. Lenine and Trotsky are very much more radical than he is. They are not only advocating municipal ownership of our business but of his business and also of his automobiles.

Mr. WARREN. Who is advocating that?

Mr. SCHADDELEE. Lenine and Trotsky. He is not radical at all compared to those men. They would take his nine automobiles.

Another fallacy that is prevalent among even the railway men is that people ride because it costs a nickel and that if it costs more than

a nickel they are not going to ride. Have you ever heard of an American citizen foregoing a convenience because it cost more? I never have. The effect of the increased cost of the ride is going to be very short lived in my opinion. If you gentlemen give us the increased rates, we will take chances on the people not riding.

In conclusion, I mention just this to your honorable commission—there are a lot of things I might talk about, but there is no use in making it too long—but here is one thing I might put up to you: I think we will all agree that a 5-cent fare was a fair rate generally five years ago and that was generally five years ago an accepted street-car fare. All right; the people paid that and nobody kicked about that. Now I think anybody will agree, without any examination of physical properties, books, or anything else, that if you start from the basis that 5 cents was fair five years ago that the establishment of a 6 or 7-cent fare at the present time generally throughout the whole country would be just as fair and would not be any more unfair now that the 5-cent fare was five years ago. And if you gentlemen could through your influence persuade these commissions or these legislatures to establish now generally a 6 or 7-cent fare as a maximum fare, and then let the people, the patrons of any of these companies, who object to that and think that is too high, let them go to their commissions and ask them to investigate whether it is too high and lower it if it is; and if the companies are not satisfied with the 6 or 7 cents, if it is established, if they feel it is not correct, then let them go to the commission and ask for a higher one. But if you could do that you could give at least some prompt general relief to the general situation.

Mr. WARREN. I forgot to ask your position with this street-railway company. Did you state it?

Mr. SCHADDELEE. Well, I am vice president and general manager of the United Light & Railways Co., which controls—

Mr. WARREN. You have been with the company since 1912?

Mr. SCHADDELEE. I have been with the company since its organization and I have been in the public-utility business since 1891.

Mr. WARREN. Have you been in the street-railway and public-utility business since 1906?

Mr. SCHADDELEE. I have been connected with the street-railway business since 1906.

Mr. WARREN. Do you know whether the street-railway fares of the companies with which you have been connected have been extended so as to include a longer ride since you have known them?

Mr. SCHADDELEE. Yes.

Mr. WARREN. Rather generally has that been so?

Mr. SCHADDELEE. Yes, and the old street-cars have been scrapped and new ones bought—

Mr. WARREN. I do not care about that, but I wanted to cover the distance they could ride.

Mr. SCHADDELEE. Yes.

Mr. WARREN. Either by building lines or giving transfers and by merging different lines?

Mr. SCHADDELEE. Yes.

Mr. WARREN. That is all.

(Witness excused.)

STATEMENT OF MR. HENRY J. PIERCE.

Mr. WARREN. Your name?

Mr. PIERCE. Henry J. Pierce, Seattle, Wash.

Mr. WARREN. Are you interested in any street railways now?

Mr. PIERCE. No, sir.

Mr. WARREN. How long since you have been?

Mr. PIERCE. I severed my connection with the street railroad business in 1909; 10 years ago.

Mr. WARREN. And before 1909 with what street railway companies were you connected?

Mr. PIERCE. I was president for some years of the International Railway Co. of Buffalo, which serves western New York with street railroad transportation. I was also president of the Netherlands Tramways Corporation, which owned and operated several street railroads in Holland—in Haarlaem, one from Haarlaem to Amsterdam and from Amsterdam to Zantfoordt.

Mr. WARREN. I understand you have suggestions to make, and that you can state them more quickly without my questioning you. Is that so?

Mr. PIERCE. Yes.

Mr. WARREN. Will you go ahead?

Mr. PIERCE. Mr. Chairman and members of the commission, while I have not been in the street-railroad business for 10 years, as I have said in reply to Mr. Warren, and while, to use a quotation of Mr. Quackenbush this morning, what I am to say for that reason is "old stuff," yet at the same time I have kept in pretty close touch with my friends in the street-railroad business, more especially so because of the great interest I took in it previous to 1909, and I have some suggestions which I wish to convey to you, very briefly.

These suggestions relate only to the city street railroads of the country and not to the subways and elevated of New York or to the interurban roads.

For over a quarter of a century the people who have ridden on street-cars have been accustomed to pay the 5-cent fare and they have come to believe that 5 cents is the value and the proper value of a street-car ride. And when attempts have been made to raise the fare to 6, 7, 8, or 9 cents the public have resented it, there is not any question about that. I ride on the street-cars myself and have ridden on the street-cars in cities where the fare had been raised, and I know there is a lot of resentment on the part of the public because they do not understand it. They have been educated along the lines of a 5-cent rate. Therefore if it is a possible thing to keep the street-car fare at 5 cents it should be done. I am inclined to think that it can be done through some readjustment of the relations that now exist and which have existed between the municipalities and the street-railroad corporations, and it is along those lines that I wish to convey these suggestions to you.

I would have the fare a straight 5-cent cash fare, no tickets. I would abolish transfers absolutely. I would have the municipalities remit all taxes and I would have the municipalities do the paving. If that is not enough—I think it would be enough in very many cases to settle these difficulties, these very serious difficulties which

confront this industries—but if it were not sufficient then I would charge an extra 5-cent fare outside of a central zone 3 miles in diameter.

I would then allow the street-car company 8 per cent upon its investment, and by its investment, I mean its cost in money that they have invested, not in any event to be greater than reconstruction cost, and in that cost I would include as a matter of fairness what might be termed the replacements of obsolescence in machinery and equipment which had been made necessary through improvement of the art.

In 1890 the horse street-cars were scrapped and the electric operation of street-cars was begun. But the motors were small, the rails were light, the street-cars were small. In 1895 the original electrical equipment had pretty much all to be scrapped—it was obsolescent. Better machinery and better equipment had come in. It had to be replaced. The same thing took place along about 1900 to 1902. The street railroads have had to be rebuilt about three times.

Now, those who have invested in street-railroad securities should not be penalized on that account, and any money which has not been returned to them which they have still invested in the property through replacements of that kind should be included in the value upon which they are entitled to earn.

Then I would have all money, all further surplus beyond that 8 per cent, go back into the city treasury.

I believe that in this way this difficulty would be solved. I believe that the street-car companies could finance and refinance their property. I think that they could deal with the bankers. I think that the people's interests would be protected, the investors' interests would be protected and everybody would be treated fairly. I do not think any other way—

THE CHAIRMAN. The general complaint here for the past 10 days is that a 5-cent fare will not even pay operating costs.

MR. PIERCE. Yes.

THE CHAIRMAN. How are you going to pay 8 per cent on the capital and turn something over to the others with a 5-cent fare?

MR. PIERCE. Through the abolition of transfers, through the abolition of taxes, and through the municipality's paying for the paving, and if that is not enough, through the 5-cent extra fare outside of a 3-mile zone, Mr. Chairman. I do not think it is right, anyway, for the street-car company to pay for paving in the street, because these streets or roads came down to us from the olden times as the king's highway through which the people might ride and walk. The street-car is the poor man's vehicle, and I suppose 90 per cent of the people who ride on street-cars are not well enough off to own horses and automobiles, therefore they have to ride. But the man who has a horse or an automobile may go through streets without paying taxes. I think it is only fair in any event that the paving should be done by the city.

Now, the only alternative to this, to my mind, would be for the municipalities to take over and operate the street railroads of the country. That I consider un-American. That I should very much dislike to see.

I think the function of government is to govern and regulate, not to own or operate public utilities. I have lived, in all, perhaps 10

years of my life in Europe. I have ridden on their railroads which were operated by government or by municipalities, and I tell you that I have met a good many czars and a good many kaisers on those cars. They do not treat the people with the courtesy that our privately operated street railroads and railways treat them here. It is un-American and I am totally opposed to it and hope we will never see it in this country.

I think that is all, Mr. Chairman and gentlemen, that I have to say.

Mr. WARREN. Mr. Pierce, I am afraid your factors would not be sufficient if the census figures are reliable; and assuming that the remission of the taxes and these burdens, although they would furnish relief, did not prove sufficient, then I understand that your principle would be instead of trying to raise the fare by a flat increase in the 5-cent territory as at present to 6, 7, or 8 cents, and, as has been done in Boston, to 10 cents, you would divide the territory into two parts?

Mr. PIERCE. I would.

Mr. WARREN. You would contract the 5-cent territory to a section of about $2\frac{1}{2}$ or 3 miles—3 I think you said—in radius.

Mr. PIERCE. I would.

Mr. WARREN. And in the rest of the present 5-cent territory you would make a new 5-cent fare?

Mr. PIERCE. Yes.

Mr. WARREN. So that the 10-cent fare would apply to the longer ride and the shorter ride would remain as at present at 5 cents, whether in the inner or the outer zone?

Mr. PIERCE. Yes.

Commissioner GADSDEN. What you really suggest is, in addition to relieving the companies of these imposts, instead of raising the price you would cut down the ride?

Mr. PIERCE. Yes.

Commissioner GADSDEN. Just a commercial proposition?

Mr. PIERCE. Yes.

Commissioner GADSDEN. Instead of a merchant raising the price of his goods he gives you less of them?

Mr. PIERCE. Yes; and then in abolishing transfers, as I recall, in 1909, and previous to that, about 45 per cent of the street-car rides in Buffalo were on transfers, and that, of course, would help a great deal, the abolition of the transfer.

Mr. WARREN. Your suggestion, as a matter of fact, is very much like what the city of Springfield, Mass., has tried with very satisfactory results and very little loss of riding, confirming your impression. I am very much obliged to you.

(Witness excused.)

STATEMENT OF MR. FREDERICK DE BERARD.

Mr. WARREN. Your full name?

Mr. DE BERARD. Frederick B. De Berard.

Mr. WARREN. You reside in New York?

Mr. DE BERARD. I do.

Mr. WARREN. Will you tell the commission your connection and experience?

Mr. DE BERARD. I am director of research for the Merchants' Association of New York. My function is the study and examination on behalf of the association of the very numerous economic questions of all kinds that come before them for consideration, for the information of their various committees. My work involves investigation and study of the legislation which is proposed at Albany, much of that which is proposed at Washington and very many of the larger business affairs of the city. We take no cognizance whatever of political questions, except as they are inseparably connected with economic questions. I have been engaged in that work for 22 years.

Mr. WARREN. And have you any interest in or connection with street railway companies or any street-railway company?

Mr. DE BERARD. None whatever; nor with any public utility of any kind.

Mr. WARREN. Have you had occasion for the Merchants' Association to study this street-railway question in its relation to the community?

Mr. DE BERARD. I have given considerable study to the street-railway question, but in connection with other public utilities of various kinds and in connection with the general study of the railway situation.

Mr. WARREN. Including the steam railway situation?

Mr. DE BERARD. The steam-railroad situation.

Mr. WARREN. And have you arrived at any conclusions, Mr. De Berard, particularly with reference to street railways which you think would be of interest or help to this commission?

Mr. DE BERARD. I have given particular attention to the relative merits of private and commercial operation of all classes of public utilities, the principles which govern them all being substantially identical, and conclusions that may be reached as to one will apply with practically equal force to all the others.

Commissioner GADSDEN. Before you go into that, you are a member of the public-utilities committee of the United States Chamber of Commerce?

Mr. DE BERARD. I am.

Commissioner GADSDEN. And that committee has had hearings on street-railroad questions—public hearings; has it not?

Mr. DE BERARD. Yes.

Commissioner GADSDEN. Some three or four?

Mr. DE BERARD. I have attended those various hearings and have received the benefit of the knowledge of numerous gentlemen, technical experts, and students of economics who have appeared before that committee.

The Merchants' Association in the latter part of 1916 directed me to make a careful study of the question of government ownership, by reason of the fact that that subject was to be considered by the Newlands Commission in connection with legislation which was then proposed for the rehabilitation or change in form of management of the railroads of the country.

I prepared a rather extensive monograph as the result of the protracted study which I gave to that subject, in which I developed somewhat fully the principles relative essentially to efficiency and

economy as between private ownership and governmental ownership. That was embodied as a part of a report adopted by the Merchants' Association and filed with the Newlands Commission, in which report the association took very strong ground against government ownership, specifically of railroads at that time, but as against government ownership in any form of public utilities.

More recently, in the early part of this year, another special committee composed of men of very high business and professional attainment was appointed by the association to reexamine the subject and to report whether in view of the changes brought about by the war there was any reason for the association to modify the previous position. That committee made a further careful study of the subject in which my work was requisitioned and likewise made a report reaffirming the previous position of the association. Both of those have been printed in the form of monographs and I have copies here that are available for the use of this commission.

Mr. WARREN. Have you given any attention to the subject of the importance of street railways to the prosperity and development and health of communities?

Mr. DE BERARD. The Merchants' Association has given attention to that subject but has not made it the subject of specific study except in so far as it relates to the industrial prosperity of the city of New York, and it has examined into the question to some extent with relation to other communities to supply instances for use in our study of that subject in New York. The general situation developed as to that is along these lines: That fully efficient local transportation is essential to the welfare both social and industrial of any community. It is essential to the social welfare of the community that its population be not extremely congested but that it be distributed over a reasonably wide territory; for several reasons, both for the sanitary and social well-being of the inhabitants, and likewise for the industrial prosperity of the business enterprises that are located there, in order that they may be located in the outskirts and at the same time have reasonably cheap and regular and efficient transportation for their working people to reach their places of employment.

The public-service commission of the first district made a very considerable study of that subject, particularly, with the result that its policy was directed very largely toward the development of a radial, as distinguished from a longitudinal, transportation in the city of New York, in order to make accessible the very large areas and unimproved lands in the boroughs and in the outskirts of Brooklyn that were not at that time accessible, and therefore were industrially useless because the working population could not obtain access to the areas, nor on the other hand could the industries obtain sites in the congested parts of the city at a reasonable cost, with the result that industrial enterprises were locating in other cities where the economic conditions as to transportation and cheap lands were most favorable.

So our general conclusion on that subject—although, as I have said, it has not been the subject of a subject report—our general conclusion in connection with our study of general conditions was that efficient and regular and cheap urban transportation is indispensable to the welfare of any growing community.

Mr. WARREN. What section did you say the commission had given attention to in order to reach it?

Mr. DE BERARD. The outlying territory in the Borough of Queens, which is very largely undeveloped by reason of its lack of effective transportation facilities.

Mr. WARREN. That is on Long Island; is it not?

Mr. DE BERARD. On Long Island, and large areas in the outskirts of Brooklyn which could not readily be reached for the same reason.

Mr. WARREN. Have transportation lines been built to that territory?

Mr. DE BERARD. A new system of subways and the extensions of the elevated lines lying in the Boroughs of Queens and Brooklyn were built for that specific purpose, for the purpose of bringing into industrial and domestic use for habitation areas that were much nearer the center of Manhattan than were otherwise available.

Mr. WARREN. Have those lines been put in operation, or some of them?

Mr. DE BERARD. They are just coming into operation now. They are in process of construction and the construction has been delayed by the war, but they are in operation to a considerable extent and probably all will be in operation within the coming year.

Mr. WARREN. And those lines, as I understand you, have been built in advance, either of industrial or population development merely for the purpose of furthering the interests of the city in further industrial development and in securing housing territory for the employee.

Mr. DE BERARD. That motive was a very important and possibly a controlling motive, but not the sole motive. Of course in laying out the new subways they had to have regard to the existing population and its demands for better and further transit; but likewise studies were made of the undeveloped areas and several of the lines were run into territory that was practically undeveloped at that time.

Mr. WARREN. And almost without population?

Mr. DE BERARD. Well, with very scant population.

Mr. WARREN. Yes, I mean compared with New York generally.

Mr. DE BERARD. Yes.

Mr. WARREN. And that was done largely at the suggestion of the transit commission?

Mr. DE BERARD. It was made the subject of a very careful study particularly by Commissioner Bassett, who visited Europe and made a personal examination and very careful study of the existing transit system in the principal industrial centers in Europe, particularly those that are supplied with more modern means of transportation. I have had frequent conversations with him on that subject, and although I speak without his authority, I believe that I reflect the results of the studies which he made and which were an important element or factor in determining the new rapid transit routes in which the cities and the companies are investing in the neighborhood of \$300,000,000.

Mr. WARREN. Do you know whether it was proposed to transport people to and from that territory at the same fare as elsewhere?

Mr. DE BERARD. The question of advanced rates of fare had not at that time assumed acute proportions.

MR. WARREN. But I mean was the idea to make the fare the same there as it was then on other parts of the system?

MR. DE BERARD. I can not speak for the commission in that respect, but I assume that it was tacitly expected that a 5-cent rate of fare would continue to be universal, because the contracts under which the new subways were built—

MR. WARREN. Were to be 5 cents?

MR. DE BERARD. Were to be 5 cents. That is one of the considerations of the contract. But as I have stated, the economic fallacy involved in a universal 5-cent fare, although pretty well understood by the street-railroad men, had not assumed any very important proportions in the public mind.

MR. WARREN. I think you said you lived in New York.

MR. DE BERARD. I do; I live in Brooklyn.

MR. WARREN. And you have been a long-time resident of New York or Brooklyn?

MR. DE BERARD. Thirty years.

MR. WARREN. Do you happen to know, as a resident of Brooklyn, whether since the roads were electrified—do you remember when they were changed from horse cars to electricity?

MR. DE BERARD. Yes.

MR. WARREN. Was there in connection with that change or following it a great enlargement of the possible ride which a passenger could take in Brooklyn?

MR. DE BERARD. Well, I have not made any personal study of that aspect of the case, but I know, and I believe I may state it for a generally accepted fact, that as the result of the consolidation of the numerous small companies in the eighties or early nineties, the length of haul for a single fare was very greatly increased, and at the present time one can ride on the surface cars from the Battery to the upper part of Manhattan, a distance of 13 miles, for 5 cents, and I think that on the later extensions of the subway, which reach from the Battery to Yonkers, some 18 miles.

Commissioner GADSDEN. Twenty-nine miles.

MR. DE BERARD. Is it?

Commissioner GADSDEN. There is an advertisement in the subway cars about riding 29 miles for a nickel.

MR. DE BERARD. Well, they have recently made extensions on the south ends of the subways which penetrate several miles into Brooklyn. I have not had occasion to go into that specifically, but I know that in former years, 30 years ago, you could get a ride, perhaps the longest possible ride over a single line of 5 or 6 miles.

MR. WARREN. That was in Brooklyn or New York?

MR. DE BERARD. Either.

MR. WARREN. Either?

MR. DE BERARD. Yes; I do not think you could get a 6-mile ride in Brooklyn at that time, not for a 5-cent fare.

MR. WARREN. So that there has been an immense extension of the possible riding since the roads were electrified 25 or 30 years ago?

MR. DE BERARD. Yes; primarily as the result of the consolidation of the numerous very small companies that were attended with very grave financial scandals, but which, especially since the reorganization of the companies, have been a very great addition to the public convenience.

Mr. WARREN. So much so that even if a 10-cent fare were now charged, it would be possible to ride for the 10 cents much further than it would have been possible to ride for 10 cents under the old system of separately operated companies?

Mr. DE BERARD. I think that is true; but as to the exact measure, we are very likely within the next few weeks to have a very concrete object lesson in New York by reason of the dissolution through receivership of the consolidation, so that the numerous separate lines will each be charging a 5-cent fare for passage over their lines; so if anybody wants to go by the surface lines from the Battery to the upper part of the island he will have the privilege of paying perhaps 15 cents where he now pays 5.

Mr. WARREN. Is a similar separation of lines threatened in Brooklyn, do you know?

Mr. DE BERARD. Yes; the Brooklyn system is made up of quite a number of separate lines.

Mr. WARREN. Whose legal existence is still continued?

Mr. DE BERARD. They are under lease to a holding company. The holding company is in the hands of a receiver and the underlying lines have just likewise gone into the hands of a receiver, so there is likely to be a dissolution of the companies there.

Mr. WARREN. And the benefit secured a good many years ago may now disappear?

Mr. DE BERARD. Yes.

Mr. WARREN. I think that is all, Mr. Chairman, that I want to ask Mr. De Berard.

Mr. DE BERARD. I should like to say a little more, gentlemen, on the subject of government ownership, if you care to listen to it.

The CHAIRMAN. Five minutes?

Mr. DE BERARD. Well, I can say a little in five minutes but I can not exhaust the subject.

Commissioner MEEKER. Well, you have a pamphlet here on the subject.

Mr. DE BERARD. In view of what Gov. Foss said this morning, I do not think his statement should be permitted to go unchallenged. There are certain assumptions in the governor's statement which to me seem entirely unwarranted. Like most advocates of government ownership, he assumes that such ownership is the haven and the relief for the assumed or alleged hardships under which the public is suffering. Personally I am inclined very strongly to discount the public's statement and its beliefs as to the extent of the hardships. As Mr. Warren's questions have indicated, the public have very substantially benefited during recent years by the major operation of street-railway lines—in the city of New York, at any rate—through consolidations and extensions whereby the public gets very much more for its money than it formerly got. There are undoubtedly justified complaints as to service, sporadic here and there, but those are subject to cure by the existing commissions.

But that was not the point that I wanted to make. I do not think that Gov. Foss's assumption that government ownership is going to effect a cure for any evils, whether real or imaginary, is correct. On the contrary, it is going to create a new class of evils. Whether under government ownership or private ownership, the operation of a street railway is a business undertaking as distinguished from a political func-

tion, and whether under private or government ownership, it must be subjected to the same rules that prevail in well-managed business undertakings. It must meet all economic costs that are involved. The public must pay those economic costs in one form or another. So the question to be considered is whether those economic costs will be less under government ownership than they will under private ownership; whether government ownership will produce equal or superior efficiency; whether it will produce equal or superior economy. And the result of my study as to the application of the principles that govern both cases is that government ownership will inevitably and unescapably result in greatly increasing the economic costs of operating the business propositions that are under consideration.

The CHAIRMAN. Have you set forth your conclusions and the reasons upon which you base them in this pamphlet of yours?

Mr. DEBERARD. Yes; I have analyzed the question with considerable fullness there and have given such illustrations as are pertinent to the subject. There are other illustrations, however, which could be adduced, which will show the uniform inefficiency of government agencies when they undertake to conduct economic undertakings, by reason of the fact that the methods that are inherent in political government and which are perfectly sound when applied to political government do not apply, are not adapted and can not be adapted to the necessities of economic undertaking. Waste and inefficiency to a high degree are inseparable from government ownership, primarily by reason of the method of selecting the personnel. And it comes down to a question of management, and under the methods of political selection the personnel to which the management is entrusted is not and can not be as efficient as that of private management, the reason being that the motives that govern the selection are different in the case of private management. Those motives result in the retention of the highest capacity of trained skill, of experience, or long, careful and constant contact with the particular industrial problems that are concerned and the bringing to bear upon those of the highest attainable degree of professional expert ability. Whereas in the case of government selections, other motives always enter into the selection. I venture to say that Governor Foss would not apply to the management of his own private business the method of selection that he applied to the selection of the public service commission of the State of Massachusetts. If he did so apply it he would not be running a factory but he would be seeking a job.

The CHAIRMAN. I am sure we would be very glad to hear you at length on that, but the commission has been here under pretty steady pressure and we would like to adjourn now until 10 o'clock to-morrow morning.

(Whereupon, at 10 p. m. the hearing was adjourned to Friday, July 25, 1919, at 10 a. m.)

WASHINGTON, D. C., *July 25, 1917.*

Met pursuant to adjournment at 10 a. m.

Present: Parties as before.

The CHAIRMAN. You may proceed, Mr. Warren.

Mr. WARREN. Mr. Chairman, I want to put in, if I may, a letter from Mr. Samuel Insull, of the Chicago Elevated Railways who,

owing to certain situations in Chicago, is not able to be present as he expected, to address the commission:

CHICAGO ELEVATED RAILWAYS,
OFFICE OF THE CHAIRMAN OF EXECUTIVE COMMITTEE,
Chicago, Ill., July 23, 1919.

TO THE FEDERAL RAILWAYS COMMISSION,
Washington, D. C.

GENTLEMEN: The demands for increased wages by the employees of the Chicago Elevated lines (of whose board I am chairman) has produced a serious situation in this city, and as it is impossible for me to leave here to appear before your commission, I should like to set forth briefly the situation in regard to this property, which serves, together with the surface lines, the transportation needs of the second largest city in the United States.

The increased cost of operation, due to labor and material, has decreased the earning power to such an extent that the Chicago Elevated lines are barely able to cover the interest charges on the underlying companies. The Chicago Elevated Collateral Trust, which owns the stock of the operating companies, had \$14,000,000 notes maturing July 1, 1919, which could not be refinanced and on which we were unable to meet the interest payment due on the same date.

The Chicago Elevated lines have been a very important factor in the development of Chicago and have never earned but a small return on the actual money invested. The rising costs produced by the war have not been offset by an adequate increase in fare, although the fare was increased from 5 to 6 cents, going into effect November 22, 1918.

We are faced with the problem of meeting the demands of the men for a further increase in wage and changed working conditions at the present time. The condition which confronts us is illustrative of the electric-railway industry throughout the country, the earning power being curtailed to such an extent as to destroy the ability of the companies to obtain money or to even maintain the integrity of their present securities.

Your commission can, I feel sure, perform a signal service to the Nation as a whole by bringing to the attention of the public the present deplorable conditions obtaining in the industry and by recommending as an immediate measure of relief such increase in fares as will prevent the ruin of this necessary public utility and by recommending a comprehensive plan for readjusting relations between the company and the public on a basis that will secure good service for the public, adequate maintenance of the physical property, and such a return to capital as will attract it into the business.

Yours, truly,

SAMUEL INSULL, *Chairman.*

MR. WARREN. I should like to call Mr. Pardee, the president of the association, for a few minutes to see about the situation of the smaller companies, many of which are members of the association but, because of their relatively small size, are unable to come here personally to state to you their condition, which is very serious.

STATEMENT OF MR. JOHN H. PARDEE.

MR. PARDEE. Mr. Chairman, I have been requested to present the question of the small railways, as there are a large number of them in the United States. Representatives of certain groups have been present here and they have prepared a little statement which they have asked me to present to you, representing the small roads:

A considerable part of the electric-railway business in the United States is located in the smaller cities.

The conditions governing the operation of street railways in these smaller cities are in general identical with those governing the operation of street railways in the larger communities.

There are, however, some inherent differences due to the size of the communities served which make the electric-railway problem in the small cities particularly difficult. Distances of travel being shorter result in fewer rides per capita

of population. Also, in order to compete with other methods of getting about and satisfy demands of the public for frequent service even in outlying sections, it is necessary to operate cars on a more frequent schedule than is warranted by the number of passengers to be carried. Under the traffic conditions which prevail in small cities it seems that the one-man car can be operated to particular advantage. All the suggestions made during this hearing for the general relief of electric railways are applicable to the small railways. Prompt increase in rates, relief from all unjust burdens and service requirements, prompt action by public authorities on applications of the railway company, cooperation on the part of public authorities, labor and the general public in the institution of safety cars and other equipment and other methods which will contribute toward the solution of the difficulties now being faced are urged. Public authorities and the public should recognize that it is absolutely necessary to eliminate all unjust public and franchise requirements, in order that the rate of fare may be kept within limits which permit its greatest possible use.

Mr. WARREN. I should like to file with the commission a copy, not authenticated, but I believe it to be correct, of the State of New Hampshire law relating to the exemption from taxation of public utilities, if I may. I will not read all of it, but I want to read section 2, which applies to this particular matter more specifically.

After providing that any company may apply to the public-service commission for determination, section 2 proceeds as follows:

If said public-service commission shall on or before the 15th day of September in any year file with the State tax commission a certificate that any such street-railway property has failed during the preceding calendar year or later period of 12 months to earn sufficient money to pay its operating expenses and fixed charges, including taxes and excluding interest on its indebtedness, and to provide for the necessary repairs and maintenance of its properties and adequate reserves for depreciation, and that in the opinion of the public-service commission such property is incapable during the current calendar or fiscal year to earn sufficient money to pay such expenses and fixed charges, and to provide for such repairs, maintenance, and depreciation; then in such case the property and estate within this State owned or operated by such corporation on its ordinary business as a street railway shall be exempt from taxation and no tax shall be assessed against the same for the tax year in which such certificate shall be filed.

Then there is a provision for a speedy determination. Section 3:

It shall be the duty of the public-service commission to determine before the 10th day of September the facts upon any petition filed under the provisions of this chapter prior to the 1st day of May in any year.

I will hand the whole statute to the secretary.

Commissioner SWEET. What are you reading from, Mr. Warren?

Mr. WARREN. This is a copy of house bill No. 154, State of New Hampshire, and I understand that has been enacted.

Commissioner SWEET. It has not yet become a law?

Mr. WARREN. I think it has become a law. I think we should check that up and get a verified copy of the act, but we will put this in de bene, assuming my impression is correct.

STATEMENT OF MR. W. E. CREED.

Mr. WARREN. Your full name?

Mr. CREED. W. E. Creed.

Mr. WARREN. You are a lawyer, I think, Mr. Creed?

Mr. CREED. Yes.

Mr. WARREN. Are you counsel for the California Trans-Bay Electric Railway Association?

Mr. CREED. For the San Francisco-Oakland Terminal Railways, which operate the traction lines in nine cities on the east side of San Francisco Bay, from Oakland, and also the Trans-Bay service between Berkeley, Alameda and San Francisco.

Mr. WARREN. Will you state to the commission the electric-railway situation in California, with special relation to the regulation and supervision and its effect in this emergency?

Mr. CREED. I speak with particular reference to the situation on the east side of the bay. The San Francisco-Oakland Terminal Railways operate two divisions: One division known as the key division, which runs trains connecting with the ferry system which carries passengers to and from San Francisco, Oakland, Alameda, and Berkeley and outlying territories on the east side of the bay; the other division is known as the traction division and operates traction lines in nine cities and the intervening territory.

The position of that company is worse to-day than it was in 1914. In 1914 the necessity for reorganization was seen and a committee on reorganization appointed and the work of reorganization has been going on ever since, the delay being due very largely to the necessary delay in securing what we call a resettlement franchise, there being a great many negotiations and some legislation necessary.

Now, I could perhaps best state the situation there by saying the California Railroad Commission in August of last year granted the traction division a 6-cent fare, an increase of 20 per cent over the theretofore fare charged. The gross revenue of the traction division was approximately \$3,000,000 per annum. There was no loss of short siders as the result of that increase of fare, and the company received at the rate of \$600,000 per annum increase.

Mr. WARREN. You got the full theoretical increase?

Mr. CREED. Yes, substantially the full; in fact, there was an unusual situation there. The granting of that increased fare was thrown on the screens in moving picture theaters and was cheered by the audiences in several theaters.

Now, the increase from labor alone in two years has been over \$600,000 in the two divisions, and the only increase in revenue which the company has had has been the increase from 5 to 6 cents and the 10 per cent increase in the key division fares. Instead of a 10-cent one-way fare, they now have 11 cents, and instead of a \$3 commutation rate they now have a \$3.30 commutation rate—that 10 per cent increase coming through the commission to meet the 10 per cent increase given to the railroads and to put the key division on a par with the Southern Pacific Trans-Bay service. Of course in addition to that labor increase there has been the increased cost of materials and the increased cost of power, so that the company is showing less revenue over and above direct operating expenses than it did a year ago or two years ago or four years ago. Its position has steadily decreased in strength.

I regard the situation there on the east side of the bay as extremely hazardous for the continuance of the service. I feel the death rattle is in the throat of those companies and that the only relief which will be of any service is immediate relief. The company can not wait for a complete final and perfected solution. It must have more money to continue that service.

The difficulties on the east side of the bay under which the company has struggled are common to all of California. These difficulties as I see them are, first, the $5\frac{1}{4}$ per cent State franchise tax on gross revenues, and that $5\frac{1}{4}$ per cent of course acts as a reducer of every increase in revenue. Secondly, the old franchise taxes—which we call under the Broughton Act, which I should say approximately averaged around 2 per cent—they amount to 1 per cent under extensions, but I think on an average they would amount to 2 per cent, taking in all cases.

Then the paving tax. This situation has occurred in several places in California: The pavement which is perfectly good for 10 years has been changed by the municipal authorities to very high-class pavement. The pavement being ordered is the very best class of pavement. Now, that has resulted in abandonment of pavement which had been paid for by the traction companies, the investment of a far larger sum of money in the most modern approved pavement. That has been a very serious burden to the traction division on the east side of the bay, and also to the key division, because there never was any reserve to take care—call it depreciation reserve or whatever you want to—of that abandonment of pavement which had an assumed life, we will say, of 10 years to run, and yet it has been replaced by more expensive pavement and an absolute loss of the 10 years of service of the old pavement borne by the company, and it was an absolute capital loss.

The next difficulty—

The CHAIRMAN. What per cent of your operating expenses is paid out for your paving requirements?

Mr. CREED. I have not looked at those figures for some time.

The CHAIRMAN. I wish you would supply it.

Mr. CREED. I can get them and will have them filed.

Commissioner SWEET. It probably would vary with different years.

Mr. CREED. It would vary with different years; and it affects the credit of a company so to have these big blows come; there is no uniformity in it.

The next difficulty, as I see it, has been in the practice out there of assessing franchises to pay for public improvements like street widening, and there is some litigation over that; but at any rate the right is asserted, and that increases the taxes unduly and there must be some change in that.

Another difficulty is the failure to more rigidly enforce traffic regulations with regard to automobiles and cut down the accidents. I believe that with a more strict enforcement of traffic regulations in the congested areas of the city of Oakland that the expense of accidents would be materially cut down. I do not think that traffic regulation has been worked to as high a degree of perfection as it ought to be.

Commissioner GADSDEN. You would get better dispatch on your cars, too, would you not?

Mr. CREED. Yes. Another difficulty—and this I regard as a very serious one—is the demand of municipal authorities for service beyond the revenue on particular lines and the refusal to permit the abandonment of lines which have not been justified, thus throwing a burden on the more profitable lines and a burden upon the system

as a whole. Because the traction division represents the consolidation of some 9 or 10 companies and the service rendered on that side of the bay was greatly improved by this consolidation. The consolidation involved the cost of many heavy abandonments, but it did give a much better service due to unity of operation and also a better service for less money.

Under the old condition there people sometimes had to pay 20 cents to get where they can now get for 5 cents or 6 cents under the increased rate. That was a tremendous advantage to the community, and the community has built up; the population has followed the transportation and the lines, but there are some lines which ought to be abandoned, and I think the insistence upon too much headway on lines which have not an adequate revenue to justify it is a serious difficulty there.

In a general way I have pictured the situation as I see it. I think, too, that—if I may go on with just this one other thought that I have—in California it is essential that there be an adjustment of the entire franchise situation. We have expiring franchises with forfeiture clauses in them, and it is essential to the reorganization of the San Francisco-Oakland Terminal Railways, and that is now in process of financial reorganization, that the company have franchises which do not expire on definite periods; and it can not be soundly reorganized until those resettlement franchises are adopted. The community has already at a public election expressed its approval of the idea and progress is being made.

THE CHAIRMAN. What is the maximum life of a franchise under your law?

MR. CREED. Fifty years is the longest they have had on that side of the bay; some 20 and some 25.

Now, I feel it is essential if that service is going to continue there, either under the reorganization committee or a private company or under a receiver, no matter who is going to be responsible for it; that there be immediate relief in the increase of income.

Commissioner GADSDEN. How much? You have 6 cents now?

MR. CREED. Yes, but I do not believe that 6 cents is going to carry the situation.

Commissioner GADSDEN. How much more would you have to have in Oakland?

MR. CREED. I think that the traction company will require 7 cents, and I feel that the key division must have an increase of approximately 5 cents for one-way fares and a commutation rate between \$4 and \$5.

Let me tell you about that commutation rate. The average haul by rail and water between the east side of the bay and San Francisco in 9 miles; that is the average. Our commutation rate has been \$3 up to the 10 per cent increase put in by the Railroad Administration, not applicable to us, but given us to put us on a parity with the Southern Pacific.

MR. WARREN. Three dollars would mean how much for the 9-mile ride?

MR. CREED. Well, very close to half a cent a mile.

THE CHAIRMAN. What do you mean by \$3?

MR. CREED. Three dollars per month.

Commissioner GADSDEN. A little over 10 cents a day?

Mr. CREED. A little over 10 cents a day. It is 5 cents each way.

Mr. WARREN. You mean the cash fare is 5 cents?

Mr. CREED. No, the commutation fare; and the cash fare is 10 cents under the old rate. The average distance is 9.1 miles.

Mr. WARREN. And that includes both the traction line and the boat?

Mr. CREED. Yes. Now, that is the lowest interurban service anywhere in the country that I know of, and the service out there has been in the past as good as any in the country and it was equaled by very few. Any of you who have traveled over those suburban or trans-bay lines have realized it is a very high class of service, and yet there is, say in round numbers, half a cent a mile for that service.

Mr. WARREN. Now you say you need immediate relief by way of higher fares, and I should think you did. Why can not you get it?

Mr. CREED. Well, our commission out there has acted with commendable courage with regard to the traction company, and we finished the case which involved the question of an increased fare in July or about the 1st of July last year, and in August the commission granted the 6-cent fare—on the 14th of August. We have not yet gone to them on the 7-cent fare, but we have pending an application for an increase of fares on the key division, and that decision has not yet come down.

Mr. WARREN. How long has that been pending?

Mr. CREED. Since July of last year.

Commissioner SWEET. The commission you speak of is the State public-utility commission?

Mr. CREED. Yes; of State-wide jurisdiction.

Mr. WARREN. They have jurisdiction to do it?

Mr. CREED. Yes; they have met the situation in California very well. Of course, there are a good many complications in connection with the increase in the trans-bay fare. The question is what the Southern Pacific, which is a competing service, will do, and whether the Railroad Administration will go to the same figure, and also the question of whether we would dare to operate at an increased fare. I have said we would; I have taken that position very frankly, and I do not recede from it. I would rather take the cream of the business, which we would get at a higher rate, and let the Southern Pacific Company go on at a lower rate than to continue as we are. It is better business and also better for the company.

Mr. WARREN. Now regarding these taxes and burdens in the nature of taxes that cost you money; suppose they were all removed, that you have mentioned; you would still need additional fare, or not?

Mr. CREED. Well, that would depend upon what the purchasing power of the dollar is going to be. I think under present conditions we would need a higher rate of fare than we had in 1914; yes. But the removal of these burdens I speak of would be a very material help in maintaining fares toward the old standards of fares—there is no question about that.

Mr. WARREN. Many of these burdens and taxes I assume, like the 5½ per cent tax, are imposed under statutes?

Mr. CREED. Yes; and constitutional provisions.

Mr. WARREN. So there is no hope of any immediate relief through that?

Mr. CREED. No; it is going to require a great deal of study to work out the permanent solution for the railway situation there.

Mr. WARREN. Could any substantial portion of those burdens be immediately removed by the action of any governmental authority?

Mr. CREED. No, sir.

Mr. WARREN. So that for immediate relief those may be dismissed from consideration, may they?

Mr. CREED. Yes.

Mr. WARREN. And that brings it back to the fare?

Mr. CREED. Yes.

Mr. WARREN. And unless the relief is forthcoming in fares you think the situation is a very serious one—

Mr. CREED. Oh, it is; I know it.

Mr. WARREN. For the continuance of the service?

Mr. CREED. Yes.

Mr. WARREN. What in your opinion could this commission do to assist the situation of these companies, assuming that it wished to assist them?

Mr. CREED. Well, if the commission has the power they could assist us by seeing we get more revenue.

Mr. WARREN. Well, they have not the power to order anything.

Mr. CREED. I know, and using whatever means they have to educate the people generally as to the necessity of an increase in fare to save the situation. Now I—

Mr. WARREN. Let me ask one other question there. You have described the condition of the two particular companies. Is it practically one interest?

Mr. CREED. Yes; it is a consolidation of a trans-bay service and a traction service.

Mr. WARREN. Should you say to this commission that substantially that represented the situation over the State?

Mr. CREED. I think so; yes. I think it does in Los Angeles.

Mr. WARREN. So that most of your companies are in need of some form of immediate relief?

Mr. CREED. Yes.

Mr. WARREN. And the only one you can suggest to the commission from your acquaintance with the laws and the situation regarding franchises in California is an immediate relief through increased revenue?

Mr. CREED. Yes. There is one other thing I would like to volunteer to the commission, and that is, I think it would be desirable if the commission could make some studies and findings regarding the future rate fixing policies of State commissions regarding utilities in general or street railways.

I feel, as everyone does, that it is desirable to have compensation and the rate of fare as low as is consistent with maintaining the credit and service, but I do think that it is essential that a rate-fixing policy making adequate provision for depreciation and contingencies be adopted. I think it requires some educational work to do that. I think it particularly desirable in particular communities that there be a uniform fare over a considerable period. I do not assume that there should be uniformity of fares over the country as a whole, but I think it desirable that there should be no fluctuation in charges for

public-utility service over any particular number of years in any particular zone in the country. The only way to accomplish that, it seems to me, is to allow these companies to have reserves to take care of the fluctuation. They must have them. I believe very strongly in State-wide regulation. I believe the great service that that has done has been to control the issuance of securities, and I think it was essential that that be done, but I think the tendency in State-wide regulation has been to require companies to give service substantially at cost. That is, when you take most of the rate cases which have been decided by commissions, you find they build up the operating expenses, whatever allowance they make for depreciation, bond interest and the dividends to the stock which is used for financing, and then there is a little margin or surplus over, but that margin has not been big enough to take care of fluctuations in conditions. And I feel there ought to be very careful thought and study given to the future policy with reference to reserves and depreciation reserves for public utilities and particularly street railways.

These reserves, of course, would be under the direct control of public-utility commissions and would be in the nature of trust funds and their disposition could be controlled by public authority.

Mr. WARREN. That relates to the permanent solution?

Mr. CREED. To the permanent solution, I am talking about. I think one of our difficulties has been that we have not had those reserves. Now you take this question of abandoning a street which has a 10 years' life, and a good useful life of 10 years, and represents, say \$200,000. That is wiped out and you put in \$500,000 in a better class of pavement. If you had a reserve to take care of those things that loss would not occur, and it seems to me those things are a part of the cost of what the community is demanding in the way of service.

Commissioner MEEKER. May I ask a question there? Would you favor building up a reserve sufficient to take care of the whole \$200,000 which is abandoned before you abandoned the old pavement for the new pavement?

Mr. CREED. I do not know that you could make your reserve—you could not tell what the public authority was going to do; but there should be a substantial reserve based upon an intelligent judgment of what was likely to be required; and if it was \$400,000 or whatever it was, the companies ought to be reimbursed for that out of the revenue, out of the business. They certainly can not maintain their credit and stand losses of that sort many times.

Now you see the utilities have been running on a fixed revenue without much fluctuation until recently, and the operating end of it has been fluctuating and the burdens of it have been fluctuating against them—or not fluctuating, but they have been on an increasing scale.

Mr. WARREN. They have been fluctuating up all the time?

Mr. CREED. Yes, not fluctuating but steadily going up. In other words, I feel the same principles would govern the maintenance of credit of a utility as would govern the maintenance of credit of any other business concern. Take the life insurance companies: they saved themselves by their reserves, and I remember very well when those reserves were very bitterly criticized; but yet they are the very

thing that has saved those companies at this time. And it was with reluctance that they were allowed to retain them.

Commissioner MEEKER. The reserves should be sufficient so that the major portion of any replacement should be paid for immediately out of the reserve: is that your idea?

Mr. CREED. Yes, sir.

Commissioner MEEKER. And the fare should be so regulated as to give a sufficient increment to reserve, so that any deficiency not immediately paid for out of reserve could be speedily made up.

Mr. CREED. Yes, and the reserves of course should be treated as trust funds, quite differently from the other funds of the company. I mean, they should be impressed with a trust, to be used under the regulatory body; and if these reserves built up higher than experience showed it necessary, they should be used for additions to service which were not capitalized or for the benefit of the public. But the possession of those reserves is a protection, it seems to me that is absolutely necessary, or in lieu of that you have to have something which means a fluctuating charge.

Commissioner MEEKER. Is not that one of the vital points in the permanent solution of the whole thing?

Mr. CREED. I think so; yes.

Commissioner MEEKER. And is not a great deal of public education needed in order to understand just plain bookkeeping?

Mr. CREED. Yes.

Commissioner MEEKER. Or which is sometimes dignified by the term accounting?

Mr. CREED. Yes.

Commissioner MEEKER. Is it not true—I will put it that way—that the public needs to be educated to the fact that these reserve funds are not the private property of the traction companies but they are, as you have expressed it, merely held in trust?

Mr. CREED. Trust funds for the protection of the credit and the service of the agency performing the service, is my idea.

Commissioner MEEKER. And that should be taken into account in any cost-of-service plan adopted?

Mr. CREED. Yes.

The CHAIRMAN. It has been generally considered, Mr. Creed, that the California Commission has been a very efficient body.

Mr. CREED. It has—I feel it has.

The CHAIRMAN. And, in studying the different cases that have come before it, it has attempted to work out economies in service and secure a rate which would bring in a fair return upon the capital invested, set aside a proper depreciation fund and things of that kind. Now during the normal years did not its practice conform to good regulative experience?

Mr. CREED. I think so. I have a very high opinion of the work of the California Commission.

The CHAIRMAN. And did not the utilities have a very fair measure of prosperity in that State?

Mr. CREED. I think so.

The CHAIRMAN. The difficulty you speak of has largely grown out of the war?

Mr. CREED. Yes.

The CHAIRMAN. With the rapidly increasing cost of labor and wages?

Mr. CREED. Yes.

The CHAIRMAN. Now, I presume it has been quite difficult for regulating commissions to meet all these applications for advancing rates because the prices have been shifting so rapidly.

Mr. CREED. It has been extremely difficult.

The CHAIRMAN. Now the question you mentioned there at Oakland: Your railroad is in competition there with the Southern Pacific?

Mr. CREED. On the trans-bay service; yes.

The CHAIRMAN. And the Southern Pacific is being guaranteed a fixed return by the Government?

Mr. CREED. Yes.

The CHAIRMAN. And that particular railroad during the war period has been actually earning its guaranty, has it not?

Mr. CREED. You mean the trans-bay service? The trans-bay service of the Southern Pacific has been operated—

The CHAIRMAN. No; I mean of the Southern Pacific as a whole.

Mr. CREED. Well, I do not know of my own knowledge about it, but I know their trans-bay service is operated at a loss in Oakland, and the balance of the railroad service is carrying the trans-bay service with which we are in competition. But the Southern Pacific has been doing very well as a whole.

The CHAIRMAN. The real problem is whether the Railroad Administration can increase that trans-bay service and add an addition to the burden on the people there when the railroad as a whole is earning a good deal of money?

Mr. CREED. Yes.

The CHAIRMAN. Can you operate on a higher basis than the Southern Pacific and keep the travel?

Mr. CREED. I think so. I think there are some territories where we are not in competition. We lose money on every passenger we carry, and if we carry less passengers we lose less money. I am not afraid to do it. We will get a selected business, and we will not lose any money on it. We can give certain service that will appeal to people and they will pay. We have some business out there.

Now, there is just one other thing. You were speaking about the California Commission, and I think this thing is true all over the country. We have had an inconsistent situation in public regulation, due to the fact that the commissions came into existence very largely after 1907 and they found utilities, street railroads, and others had been issuing securities on that theory, you see; and the commissions came in and took control of the issuance of securities and they fixed rates with reference to companies which had securities issued in large part on a different theory from theirs, on the theory on which the commissions themselves issue securities. And I have always thought the only thing to do was to treat rate fixing as a financial question purely and simply, and as an action by public authority to maintain credit and service and that if they were unwilling to support the securities which were already out—in other words, if they were unwilling to permit the credit of the

company to go on—that the commissions might just as well frankly force reorganizations in those securities and cut down the securities to where they could handle the thing as a whole. Now, we have had that inconsistency in regulation which I think has been a very bad thing. I found it in several other classes of utilities where we have had securities issued and put out in good faith and our credit depended upon the maintenance of revenue to support those securities. Now, if you fix rates upon an entirely different theory and do not kick out those securities you have an entirely different situation.

The CHAIRMAN. The California Commission has sought to regulate the rates so as to bring a fair return on the value of the property?

Mr. CREED. Yes.

The CHAIRMAN. And have proceeded to value the property in very many cases?

Mr. CREED. Yes.

The CHAIRMAN. Do you think that to be a proper basis?

Mr. CREED. Yes; I approve of that; but I think it is merely producing a slow death to go on without removing that inconsistency.

Commissioner MEEKER. Do you think the same authority should regulate the issuance of securities that regulates rates?

Mr. CREED. Yes, sir.

Commissioner MEEKER. Will you explain why?

Mr. CREED. Well, because the credit of a company depends upon what it earns and its management; and it requires its earnings to pay its operating expenses, take care of its depreciation, and pay the obligations on its securities, and I think there is an absolute close connection between the securities out and the revenue. And I would go even further than that. I would give the State regulating authorities the power to control financial structures of companies and control reorganizations. If you are going to have regulation you might as well have it 100 per cent, because those three things are so intimately connected that you have a constant struggle unless you have cooperation in the issuance of the securities, approval of the securities already out, and regulation of the revenue in harmony with those securities.

Commissioner MEEKER. It has been stated to the commission that the function of protecting the public and the traction company was something different from the function of protecting the investors. You think that there is no conflict there, that it is really part of one function.

Mr. CREED. I do; yes. I do not agree with that other theory. I have heard of it, but I do not agree with it. That is a personal view only of my own. I think we have, in most cases, too much duplication and lapping over. I think the more consolidation you have in regulation, the better.

Mr. WARREN. That is all.

Commissioner SWEET. I want to ask a question. How is your State commission appointed? By the governor?

Mr. CREED. By the governor; yes.

Commissioner SWEET. How many are there on the commission?

Mr. CREED. Five, and several examiners.

Commissioner SWEET. And if you wanted to have an increase of fares, what do you have to do?

Mr. CREED. File a petition, the matter is set for hearing, and you have a hearing, and the commission's engineers investigate and make a valuation of the road and you present evidence orally and in writing; the usual procedure.

Commissioner SWEET. Pending the action of the commission, does the old rate continue?

Mr. CREED. Yes; it always has so far in California.

Commissioner SWEET. Do you know what the arrangement is in Pennsylvania?

Mr. CREED. What is that?

Commissioner SWEET. Are you familiar with the arrangement in Pennsylvania in that regard?

Mr. CREED. No; I am not.

Commissioner SWEET. Do you think it would be an advantage or better, on the whole, that the proposed rate should be the one that should be in operation while the matter is under consideration by the commission?

Mr. CREED. I think it would be in the interest of both the company and the public to have that done.

Commissioner SWEET. That, as I understand it, is the Pennsylvania law.

Mr. CREED. Yes.

Commissioner SWEET. You said you were the counsel for the companies whose business you have been describing.

Mr. CREED. Yes—well, I handle rate matters and other matters.

Commissioner SWEET. Their legal adviser?

Mr. CREED. Yes.

Commissioner SWEET. Of course, you recognize the fact that so far as the trans-bay—I think that is what you call it—the across-the-bay company is concerned, that nothing could be done legally, no advice or suggestions could be made by this commission that would be helpful, so far as competition of the Southern Pacific is concerned? That is an entirely outside matter; is it not?

Mr. CREED. Well, I do not quite understand you, Mr. Commissioner.

Commissioner SWEET. What legal authority could render assistance in a matter of competition between two private corporations?

Mr. CREED. If the Railroad Administration had jurisdiction of both lines it could; yes.

Commissioner SWEET. Oh, yes.

Mr. CREED. But it has not jurisdiction of the Southern Pacific lines now, although it did have formerly.

Commissioner SWEET. If you were permitted to raise your rate and should raise it beyond a certain point, it would cut off a very large proportion of your business across the bay; would it not?

Mr. CREED. Some.

Commissioner SWEET. But if I understood you right, you think even that would be better than the present situation?

Mr. CREED. Anything, I think, would be better than the present situation. Let me tell you something. Do you know that the key division is earning less than one-half of 1 per cent on the railroad

commission's valuation, without any depreciation fund for unmaturing depreciation, I mean depreciation which might mature in the future.

Commissioner SWEET. Well, that situation is pretty near as bad as it can be.

Mr. CREED. Now, there is no question of capitalization there at all. It was 0.49 per cent. In other words, it is just barely taking in the outgo.

Commissioner SWEET. In your complaint in regard to street paving you particularly stressed the point that sometimes the railroad corporation is required to put down a new pavement in place of one that has not worn out.

Mr. CREED. Yes.

Commissioner SWEET. Do you not think you could reasonably go a good deal further than that and claim that it is unjust and unfair and unreasonable for a street-railroad company to be required to do any paving?

Mr. CREED. Oh, yes. I thought I did that. I intended to. Of course, that is a relic, as everyone knows, of old days. I thought I did point that out.

Commissioner SWEET. Well, perhaps you did; but I did not hear it.

Mr. CREED. Yes; I think they should be relieved absolutely of that burden. But I was pointing out that not only did the street railway company on the east side of the bay have the burden of carrying the original paving but it has also had thrust upon it the burden of abandoning a pavement before it is worn out and while it is still in serviceable condition to make way for some municipal notion of a new kind of pavement, costlier and better.

Commissioner SWEET. Please describe this $5\frac{1}{4}$ per cent tax you spoke of.

Mr. CREED. That is a constitutional tax of the State of California applicable to street railways which is called a State franchise tax and amounts to $5\frac{1}{4}$ per cent of the gross revenue from operative properties.

Commissioner SWEET. Does that apply to other public-service corporations?

Mr. CREED. It applies to some others, yes; but not to all.

Commissioner SWEET. What others? Light?

Mr. CREED. Yes; gas, light, and power companies and to railroads.

Commissioner SWEET. Steam railroads.

Mr. CREED. Yes. It does not apply as to local property. It does not apply to water companies, for certain constitutional reasons.

Commissioner SWEET. Is that $5\frac{1}{4}$ per cent upon the entire capital stock?

Mr. CREED. No; on the gross revenue.

Commissioner SWEET. On the gross revenue each year?

Mr. CREED. Yes; on the gross revenue each year. Now that $5\frac{1}{4}$ per cent is not the only tax. If the company has any nonoperating property it pays in addition the municipal, county, and State taxes upon nonoperative property.

Commissioner SWEET. But if the property is in actual use those factors are remitted?

Mr. CREED. There is no direct tax of the property as such, which is operative property.

Commissioner SWEET. You mean no local taxes?

Mr. CREED. No, no local. That is of long standing. There was an attempt to increase that at the last session of the legislature in 1919—but the increase was not made—or there was a suggestion made.

Commissioner SWEET. Has there ever been any attempt made in California to get the constitution changed with regard to that 5½ per cent tax on gross revenue?

Mr. CREED. There has been a great deal of discussion about it. I do not know that you can say an attempt has been made.

Commissioner SWEET. There is no sentiment there for the change?

Mr. CREED. I would not want to state as to the sentiment. There might be some doubt as to whether it can be changed now, but that sentiment might change. I think this, that this indirect taxation we have had in California has been a very bad thing; I will be perfectly frank about it. We have thrown there the burden of taxation on large corporations through this State franchise tax, and that, theoretically, is in lieu of all State taxation. The result is that your taxes are removed from the great mass of the people and the cost of government has run up very rapidly, just as some of us predicted it would do, but that is quite apart from what we are discussing here. Personally, I would like to see that entire system of taxation removed and have taxes brought directly home to the bulk of the people.

Mr. WARREN. If you are going to tax the car rider you would rather tax him so he would know he is being taxed rather than through his car fare?

Mr. CREED. Yes.

Commissioner SWEET. Just one general question. Do you see any prospect of solving your California problem through the medium of reducing expenses—I mean for immediate relief?

Mr. CREED. Well, when we had that hearing before the California Railroad Commission which resulted in a 6-cent fare for the traction division one of the high officials of the Southern Pacific Railroad Co. said, "You people remind me of the sons of poor men; you know how to economize and how to make a dollar go a long way."

I believe that that company is operated down to the bare bone. Their executive officers are paid ridiculously low salaries, and so is their entire office force. Their salaried people are paid very low wages and they are operating on as low a cost as they can operate, except that the skip-stop plan was put back; we had that during the war and it has now been removed. There are some things of that sort that might be done; and the installation of a few more one-man cars on some of the outlying lines. I think they have 22 one-man cars now. But the economies that could be made would be inconsequential in the general situation if you maintain the service that the community demands.

Commissioner SWEET. Recognizing the fact that the present situation requires either an increase of income or a decrease of expenditures, you see no relief, if I understand you right, in the latter and you look entirely to an increase of income for relief?

Mr. CREED. Yes.

Commissioner SWEET. And you think that the proper way to give that relief is an increase of fares?

Mr. CREED. Yes.

Commissioner SWEET. As quickly as it can be done?

Mr. CREED. Yes.

Commissioner SWEET. And in your judgment that would give immediate relief pending a more complete and thorough readjustment of the situation upon conditions that exist to-day and did not exist 10 or 15 or 20 years ago?

Mr. CREED. Yes.

Commissioner SWEET. Is that your idea?

Mr. CREED. That is my idea exactly.

(Witness excused.)

STATEMENT OF MR. HARLOW C. CLARK.

Mr. WARREN. Your full name?

Mr. CLARK. Harlow C. Clark.

Mr. WARREN. Where do you reside?

Mr. CLARK. New York City.

Mr. WARREN. What is your present occupation?

Mr. CLARK. I am the editor of Aera.

Mr. WARREN. That is a street-railroad journal?

Mr. CLARK. Yes.

Mr. WARREN. Circulating among street-railway men principally?

Mr. CLARK. Yes.

Mr. WARREN. How long have you been editor of that journal?

Mr. CLARK. Since 1913.

Mr. WARREN. What was your occupation before that?

Mr. CLARK. I have had various occupation.

Mr. WARREN. I mean just before that.

Mr. CLARK. Just before that I was with the firm of Allen & Peck who are public-utility operators, for about a year. Before that I was located in the city of Syracuse, where I was secretary of the chamber of commerce for one period and commissioner of public safety for another period.

Mr. WARREN. What are the duties of the commissioner of public safety?

Mr. CLARK. In New York State in the cities of the second class they have single-headed commissions. The commissioner of public safety is in charge of the police, fire, and health departments; and in the city of Syracuse I was in charge of the building department and the bureau of gas and electricity.

Mr. WARREN. So that your duties brought you more or less in contact with the public utilities of the city, I suppose?

Mr. CLARK. Yes.

Mr. WARREN. And as the editor of the Aera have you had occasion to make a study of this question of the actual relation of street railways to the communities which they serve and also to changes in those relations which might be desirable?

Mr. CLARK. I have had almost continuous study of it from the time I was connected with Aera.

Mr. WARREN. You have heard all the testimony which has been given here in the last few weeks?

Mr. CLARK. Yes, sir.

Mr. WARREN. And you have discussed it with various street-railway men at different times, I suppose?

Mr. CLARK. Yes.

Mr. WARREN. As a result of your studies and perhaps with what you may have heard here, have you formed any opinion of your own as to the probable proper solution of that situation and of any changes in the situation between the public and the utilities, so far as they are street railways?

Mr. CLARK. I have, and I put them on paper rather briefly, if I may be permitted to read them.

Mr. WARREN. I should like to have you read them to the commission.

Mr. CLARK. The continued furnishing of efficient and sufficient urban and interurban transportation is a recognized vital necessity of modern community life.

It is recognized to be a function of the government of each State to provide that such service shall be performed.

Heretofore the custom, with few exceptions, has been that these necessary facilities should be provided by private agencies, with the use of private capital, and subject to such regulations by governmental agencies as would insure that the service should be continuous, reasonable, sufficient, and efficiently rendered.

To provide a service of this character by private capital, it is necessary that the terms and conditions prescribed by the authorities shall make such investments safe and enable them to secure a return which will induce private capital to select investment in the utility to such an extent as will provide the necessary funds for capital purposes. Such further return should be allowed as would stimulate the operating utility to the greatest measure of economy, efficiency, and initiative, and thus insure the development of the art and the maintenance of the public service at the high standard demanded by the American public; otherwise, private capital will elect to seek other investments, the standard of service will be depreciated, and the maintenance and improvement of these properties will have to be provided for from State or municipal sources, and deficits in operation made up by taxation, or the service permitted to deteriorate and finally terminate. As the last alternative is impossible in modern life, the actual question is: Shall the service be provided by the use of private capital or by the use of public credit and resources?

As existing laws and conditions in the different States do not make a general adoption of the principle of municipal ownership or operation feasible at this time, the industry must be conducted by the use of private capital, whatever final policy the public may adopt in this respect.

This is feasible if the following suggestions for emergency relief and for a permanent plan are followed:

Emergency relief: Such an immediate temporary increase in the charges for transportation (subject to revision by the subsequent permanent plan) as is necessary to meet the present crisis and to prevent that financial disaster which is imminent to a large majority of the industry. This would maintain the service during the development and formulation of the permanent plan by which also any suitable revision in such emergency increase could be made.

Permanent plan: A plan for the permanent conduct of the business, under State or municipal regulation, capable of automatically adjusting itself from time to time to varying conditions.

The machinery for such permanent plan should include:

(a) The ascertainment of the amount upon which the enterprise should, in fairness and justice to both the investors and the public, be allowed to earn a return.

(b) The establishment by the authorities of a system of charges for service by which rates will automatically increase or decrease above or below the initial rates named in the permanent plan by a defined method and schedule so as to yield at all times sufficient revenue to meet all the payments contemplated by the plan, including such protective reserves as should be established, and also sufficient opportunity for participation in benefits resulting from economy, efficiency, and initiative to induce the greatest efforts by the utility.

(c) Power of regulation, either by State or municipal authorities, in respect to all matters affecting conditions and character of service, including extensions, improvements, and betterments.

(d) The utility to be conducted on the so-called indeterminate franchise principle and to be subject to such regulation as may be prescribed by law in respect to accounts, to capital investments, and other matters.

(e) The establishment of the right of the municipality or other governmental agency to purchase, as shall be set forth in the plan, which shall in particular establish the price or the method of ascertaining the price.

(f) All special taxes and all special charges and assessments paid by the utility are in fact paid by the car rider, being a part of the cost of transportation. Car riders as a class should not be subjected to such indirect or special taxation and should, so far as the particular circumstances in each community will permit, be relieved therefrom.

Mr. WARREN. How important do you think it is that these companies should be afforded emergency relief pending the determination and adoption of some permanent plan for establishing their relations to the public?

Mr. CLARK. I think it is absolutely essential. I think, from the testimony brought out before this commission and from a general knowledge of the situation, it is apparent that a crisis exists in street railway affairs; that this crisis is in the nature of an emergency such as is provided for and described in many of the public-service laws, and in which the commissions are authorized to waive the usual provisions as to increasing rates and make an emergency rate. I believe that this emergency should be considered not alone as affecting the investors in the properties, but particularly as affecting the public which, in my opinion, is in a great many cases threatened with an entire loss of its service and in many more is threatened with a great deterioration of service.

If I may be permitted to add to that this suggestion, if this commission after hearing this testimony, representing the President and the Federal Government, should declare that in its opinion such an emergency as I have described exists, it would have a tremendously helpful effect upon public opinion and public sentiment all over the country.

Mr. WARREN. And that you say is a result of your study of the attitude of the public toward these utilities?

Mr. CLARK. Yes.

Mr. WARREN. And do you think that effect would result not only as regards the public-service commissions, the state regulatory bodies, but also as regards the municipal bodies, in those cases where the authority rests with the municipal authorities?

Mr. CLARK. I believe it would have a very great effect.

Mr. WARREN. That is all I want to ask, Mr. Clark.

The CHAIRMAN. How many years have you been a student of this problem?

Mr. CLARK. Well, indirectly for a great number of years. While I was secretary of the chamber of commerce, there were a great many public-utility problems coming up to which I gave more or less attention, but directly, since I became connected with the publication Aera in 1913.

The CHAIRMAN. And do you feel that your experience and study qualify you to outline a program that would be beneficial to the industry?

Mr. CLARK. Why, I can not answer that question, Mr. Commissioner, without appearing immodest, but I think I have given a great deal of attention to the matter. I think I have a fairly good knowledge of the facts.

The CHAIRMAN. Do you believe that the adoption of this program, if it could be consummated, would give the immediate relief to the utilities which they need?

Mr. CLARK. The part of the plan which discusses the emergency measures, I think, would give the emergency relief to a large extent.

The CHAIRMAN. And do you think that the permanent plan which you have outlined would be one upon which all utilities and the public could safely depend?

Mr. CLARK. I believe so.

The CHAIRMAN. Now, as to the emergency relief, you have got to deal with State commissions or with municipal authorities. In many cases the rate is fixed either by law or by contract. How do you think that a recommendation by this commission can be of any assistance to utilities where they are dealing with municipal authorities?

Mr. CLARK. Only by the effect that a pronouncement coming from a board of this character would have upon public opinion and as ammunition, as it were, for men who are now partly convinced that this relief should be granted and who would like to have their hands held up and fortified.

The CHAIRMAN. In other words, a report from this commission could be used as sort of an educational medium?

Mr. CLARK. Exactly.

The CHAIRMAN. Do you know if there have been many increases in rates allowed during the war by municipal authorities?

Mr. CLARK. I know of a number. I think, if it would interest the commission, that we have a study of that question made and can divide the total number of increases allowed into those allowed by commissions and those allowed by local authorities.

The CHAIRMAN. I think it would be very helpful to them to have that in the record.

Mr. CLARK. Well, I will see that you get it.

The CHAIRMAN. That can be filed as part of your testimony.

Mr. CLARK. Yes.

The CHAIRMAN. Generally speaking, have you found the municipal authorities fairly receptive in these rate cases?

Mr. CLARK. Why, I think it is almost impossible to make any general statement to that effect. In some cases they have been. I know that in the State of New York, with which I am perhaps more familiar than any other State, in the cities of Albany and Utica, which are fairly large cities, and including my own home city of Syracuse and several others, the city councils have waived the provisions of their franchise and allowed the public-service commission to determine a higher rate of fare.

The CHAIRMAN. What has been the attitude of the State regulating commissions in the States where they had control of the rates during the war period?

Mr. CLARK. I think generally sympathetic, Mr. Commissioner.

The CHAIRMAN. Have they in a large majority of the cases granted the applications prayed for in the petitions?

Mr. CLARK. I think so.

The CHAIRMAN. Broadly speaking, the industry has no real complaint of the service given by the State commissions during the war; has it?

Mr. CLARK. Only so far as delays have occurred, Mr. Commissioner, in administering the law. Whether those result from the perhaps unnecessarily cumbersome procedure or not, I think you can only discuss in individual cases.

The CHAIRMAN. Now, with respect to emergency relief, that means an increased rate?

Mr. CLARK. Yes.

The CHAIRMAN. Is it your thought that the rate should be established as an emergency rate for a certain definite period of time, leaving to the municipality or a State commission the power to extend that time upon a showing made by the industry that there has not been a sufficient change in conditions to warrant a resumption to the basis of the old rate?

Mr. CLARK. My idea, Mr. Commissioner, was that the emergency rate which might be put into effect in accordance with the recommendations I have made to you would stay in effect until a permanent plan for regulating those rates should be adopted.

The CHAIRMAN. So it is not an emergency war rate that you want?

Mr. CLARK. No.

The CHAIRMAN. But simply a rate to tide over until a permanent solution is worked out?

Mr. CLARK. Yes.

The CHAIRMAN. Then perhaps your word "emergency" is not strictly accurate.

Mr. CLARK. Well, I doubt if I am prepared to admit that, because I think that this emergency is going to continue, at least until a permanent plan is adopted.

The CHAIRMAN. Well, we will not quibble over the term, Mr. Clark.

Mr. CLARK. Yes.

Mr. WARREN. Some of us think the emergency is increasing. I received a Boston paper this morning which created that impression.

The CHAIRMAN. During the war quite a number of commissions granted emergency relief?

Mr. CLARK. Yes.

The CHAIRMAN. By fixing the rates for a definite period?

Mr. CLARK. Yes.

The CHAIRMAN. Subject to an extension on the showing made by the industry that the conditions had not changed. Would not that be entirely satisfactory to the industry, and would it not pacify public feeling a good deal better than to have a rate put in without any limited time?

Mr. CLARK. I think perhaps so, except that in a great many of those cases—I say a great many, at least, in some of the cases—the commissions have since decided that their powers under the emergency act of the constitution have ceased by the signing of the armistice and that they are now without the power.

The CHAIRMAN. What commissions have so ruled?

Mr. CLARK. Well, if I am not mistaken, the Indiana Commission has so ruled; at least, the increase granted to the Indianapolis company, if I am not mistaken, was withdrawn because of that reason.

The CHAIRMAN. Well, I presume they have construed the statute that way.

Mr. CLARK. Yes.

The CHAIRMAN. Now, when you come to your permanent plan, that permanent plan suggests either State or municipal regulation?

Mr. CLARK. Yes.

The CHAIRMAN. You have given a good deal of study to the question of regulation, have you not?

Mr. CLARK. Yes.

The CHAIRMAN. We have the two theories: The home-rule theory and the State regulation?

Mr. CLARK. Yes.

The CHAIRMAN. Now, in your judgment should regulation be exclusively in the municipality or in the State, or should there be some sort of a happy middle ground whereby you can work out proper cooperation between both?

Mr. CLARK. I think the advantages of the two systems might be stated in this way, that when you have State regulation it is more stable, it is less likely to be affected by prejudice, and on the whole it is perhaps fairer both to the company and to the public in the long run. That when you have municipal regulation such as is extant in Cleveland, you secure perhaps a greater degree of cooperation from the public than you do when the State commissions are in charge of the regulation. I believe that your suggestion would make an ideal system of regulation if it could be put into effect, if some way of combining the two could be devised.

The CHAIRMAN. Do you think that the State as such should attempt to regulate the service within a village or city?

Mr. CLARK. Well, there are a great many questions entering into that, Mr. Commissioner.

The CHAIRMAN. When I speak of service I refer to speed, stops, and to the ordinary regulations which are so closely identified with the welfare of the city itself.

Mr. CLARK. In a modern city the systems extend usually beyond the city limits, the suburban lines are part of the city system, the

interurban lines are part of the city system. The authority of a city regulatory commission would cease with the city limits.

The CHAIRMAN. Yes.

Mr. CLARK. I refer particularly to Boston, where they have what I think is known as the metropolitan district, where the service extends for miles beyond the city limits of Boston; and while Boston city has no particular jurisdiction over those communities, it is really part of the community life of Boston; and service on those properties should be regulated as a whole, and not allow the city of Boston to regulate the service within the well-defined limits of the city itself and allow the other municipalities to regulate it within their limits; there should be some general regulation of that system which would make it most efficient and the best for all the people served.

The CHAIRMAN. Well, referring now to this Boston situation, do you think it would be fair to the public, as well as to the utility, to permit the municipal authorities in Boston to have jurisdiction over the service and extensions of street-cars subject to an appeal to the State commission by either party?

Mr. CLARK. I believe that in that particular instance it would not be very workable.

The CHAIRMAN. Why not?

Mr. CLARK. For the reason that each of these other communities would also have the right of appeal to the commission and that, as I say, it would be difficult to coordinate the entire system of service to one whole that would most efficiently serve all the communities. I think it might be possible to create a metropolitan district which would have that right of an appeal to the public-service commission.

The CHAIRMAN. Do you believe if the right of appeal by these different municipalities to the State commission were granted it would promote confusion and delay and uncertainty rather than stability?

Mr. CLARK. I am inclined to think so; yes, sir.

The CHAIRMAN. But you would have a final body to determine the question?

Mr. CLARK. Yes.

The CHAIRMAN. And establish the general rules which municipalities must obey?

Mr. CLARK. Yes.

The CHAIRMAN. Now would not that result finally in the establishment of a general code of rules for the service, the speed, and stops and extensions and things of that kind which would be controlling upon municipal authorities and thus stabilize the whole industry?

Mr. CLARK. Well, I am not an operating electric official, and I do not believe that I am prepared to answer that question, because it seems to me that that is a question of operation and a very serious question, whether any code or standard or set of rules could be adopted that would apply indiscriminately to all services rendered under various conditions and in various cities.

The CHAIRMAN. Well, that may be so.

Mr. CLARK. Yes.

The CHAIRMAN. But generally speaking they could be adopted?

Mr. CLARK. I suppose general principles could be laid down.

The CHAIRMAN. Now, do you think in Boston it is better to have the State commission regulate all the affairs of the utility?

Mr. CLARK. It would seem to me that in that particular situation it would be better either to have the State regulate them or, if it were possible to combine the territory that they serve into some district, to have such a district regulate them.

The CHAIRMAN. Do you feel that the Massachusetts situation is typical so that it could be applied to all the States of the Union, or is it rather an exception?

Mr. CLARK. I think that is rather exceptional.

The CHAIRMAN. Then we have to look somewhere else for experience that will enable us to develop a plan which can be useful throughout the country?

Mr. CLARK. Yes, sir.

The CHAIRMAN. Now then apply the same questions I have asked you to some of the other States. Take my own—Minnesota. Do you think that plan of cooperation would work there?

Mr. CLARK. Between a State commission and a local commission?

The CHAIRMAN. And the city, yes.

Mr. CLARK. I would have to ask a question first.

The CHAIRMAN. Yes.

Mr. CLARK. I would have to know how closely the system, say, of St. Paul and Minneapolis are coordinated, how the schedules for instance in one city affect the schedules in the other city.

The CHAIRMAN. You have got several corporations, but they are all owned by the same persons and they intertwine and it is practically one service.

Mr. CLARK. Would it be possible to get the city of St. Paul and the city of Minneapolis to agree upon one regulating commission to regulate the service on both systems?

The CHAIRMAN. I do not think so.

Mr. CLARK. I am rather inclined to doubt whether such a plan would be feasible, Mr. Chairman, in that particular situation. I believe that within a self-contained community that it would be entirely feasible.

The CHAIRMAN. Do you not think that there is a very strong sentiment throughout the country in favor of home rule of these utilities?

Mr. CLARK. Yes.

The CHAIRMAN. And that if you can not have some measure of local control the sentiment will demand local ownership and operation?

Mr. CLARK. I might say in regard to that that I do not know how far a sentiment of home rule goes in that respect.

The CHAIRMAN. Well, it is mighty strong there.

Mr. CLARK. Perhaps in Minnesota. But I am referring particularly to one case in New York where Gov. Smith, who was elected on a home-rule platform and who was, I understand, an ardent advocate of home rule, vetoed the cost-of-service bill for the city of Buffalo on the ground it interfered with the jurisdiction of the public service commission and withdrew the International Railway of Buffalo from the jurisdiction of the public-service commission. It is

evident there, in the mind of one man at least, that the two theories are not incompatible.

The CHAIRMAN. Speaking for the industry, of course you have talked to a great many men in this business. Does it prefer State to local regulation?

Mr. CLARK. I do not believe that I could answer that question. I know a very large number of men who prefer State regulation. I know a few men who prefer local regulation.

The CHAIRMAN. But the industry is very rapidly growing and expanding from city to city?

Mr. CLARK. Yes.

The CHAIRMAN. One corporation may utilize the streets of a large number of cities?

Mr. CLARK. Yes.

The CHAIRMAN. Does not that in and of itself establish the fact that you have got to have a central organization or a central control over the rates and service and capitalization of these industries?

Mr. CLARK. Personally, Mr. Commissioner, I believe that, as a mere matter of economy and efficiency, in the majority of cases State regulation is necessary. If you are going to add to the burdens of the street railways, which are very large at the present time, the additional burdens of providing the machinery for regulation it is going to make a considerable difference in the receipts of the companies.

The CHAIRMAN. Now your paragraph (a) says: "The ascertainment of the amount upon which the enterprise should in fairness and justice to both the investors and the public be allowed to earn a return."

Mr. CLARK. Yes.

The CHAIRMAN. That presupposes that, before you can establish rates and stabilize credit, the utility as well as the public must know what a property is worth. Of course the general scheme to-day is to value the plant; in some places that is done simply by agreement with municipal authorities and in other cases it is done by the State. Now, looking at it in the broad way, which is the best method: To have this done by agreement with the municipal authorities or to have the State investigate the property and fix the value?

Mr. CLARK. I would say that the method by which you can best invite the confidence of the public in the value as fixed is the method that should be adopted.

The CHAIRMAN. Now, which of those methods would invite that confidence?

Mr. CLARK. Depending upon the confidence which the community has in the public-service commission. I have no doubt that, in States where the public-service commission has been established long enough and has so conducted itself that it is firmly fixed in the confidence of the public, a valuation of the property made up by it would secure exactly what I said.

The CHAIRMAN. Is it not a fact that the State commissions are equipped with expert engineers and statistical men who are qualified to make an impartial study of a plant and to fix a fair valuation better than a municipality, which must go into the market and purchase

experts and engineers to make a proper study for a particular purpose?

Mr. CLARK. Oh, yes; no doubt about that.

The CHAIRMAN. In other words, is there not a larger element of fairness in having the State, which is an impartial body, determine the value of the plant which the public is going to buy rather than have a particular community itself do that thing?

Mr. CLARK. Personally, I should think so; yes.

The CHAIRMAN. Then you would generally favor valuations made by the State rather than by municipal authorities for these agreed values?

Mr. CLARK. Except under the limitations I made in my first statement.

The CHAIRMAN. Your paragraph (b) suggests a scheme of rates which will automatically increase or decrease above or below the initial rates according to operating conditions?

Mr. CLARK. Yes.

The CHAIRMAN. The essence of that plan is the cost of service?

Mr. CLARK. Yes. I believe the cost-of-service plan is perhaps a misnomer, because I believe that ever since the State has taken over the regulation of public utilities, the theory of cost of service has been established. I do not know what else to call the plan—

The CHAIRMAN. I presume that paragraph, or the suggestion contained in that paragraph, is predicated upon the experience which has been had in Cleveland, Cincinnati and some other places with what is known as the cost-of-service plan?

Mr. CLARK. Yes.

The CHAIRMAN. From your study of the industry do you believe that that plan produces the largest degree of satisfaction to the communities?

Mr. CLARK. I am inclined to think so. The trouble with making an answer to a question of that kind, Mr. Commissioner, is that in no instance except Cleveland has it been in practice long enough to get a true reflex of public opinion on it, in my opinion.

The CHAIRMAN. Well, is it still experimental?

Mr. CLARK. Yes—well, I would not say experimental, no; because it has proven itself in Cleveland.

The CHAIRMAN. It has proven itself to be very effective during the rapidly changing operating conditions during the war?

Mr. CLARK. Yes.

The CHAIRMAN. But would the cost-of-service plan in Cleveland give real satisfaction during a normal period covering a good many years?

Mr. CLARK. As I remember it, it was put into effect in Cleveland in 1911 or the latter part of 1910 and, as near as I can judge, so far as the public is concerned it has given satisfaction during all that period.

The CHAIRMAN. But considering the industry as a whole, there being large companies as well as small companies operating in large as well as small cities, do you think that a plan by which the State commission should have the right to fix the rates upon investigation or upon complaint would give more general satisfaction and a greater measure of security to capital than your cost-of-service plan now used in Cleveland?

Mr. CLARK. I doubt it, Mr. Commissioner, because I believe that the fixing of a rate should or ought to be a matter of arithmetic. Your expenses are so much, your receipts are so much, and those receipts should be regulated automatically to cover your cost. Now, I can see no good reason why that should be left to the judgment of anybody, having decided on the principles or the elements which go to make up your service or your cost of service.

The CHAIRMAN. But if the value of a property is established and built up as extensions and betterments are added to it, then the commission always has the value and knows what the base must be for return purposes?

Mr. CLARK. Yes.

The CHAIRMAN. It simply requires a study of the operating sheet to determine whether or not you must have an increased rate; does it not?

Mr. CLARK. That is all.

The CHAIRMAN. Then the value having once been established, the commission having the power to fix rates either upon its own motion or upon petition, have you not got all that the industry needs?

Mr. CLARK. No; because I think there is still the element of delay which is very costly—costly both to the company and to the public.

The CHAIRMAN. Don't you think a large part of that delay grows out of the fact that there is a very considerable prejudice against the capitalization of companies and a feeling in the public mind as well as in the minds of many of the commissioners that the utilities are trying to get a return upon a lot of stock which is either fictitious or not represented by capital?

Mr. CLARK. I think that is probably true.

The CHAIRMAN. And when you have your properties valued by the State have you not removed every element of suspicion against the company and reduced the whole proposition to a plain dollars and cents question?

Mr. CLARK. Undoubtedly.

The CHAIRMAN. And will not that result in expedition in the determination of these rate cases?

Mr. CLARK. It might.

The CHAIRMAN. Don't you think it would?

Mr. CLARK. Yes; I think it would.

The CHAIRMAN. Then, don't you believe that as far as the industry is concerned you are entirely safe to have either a cost-of-service plan or a scheme of State regulation, wherein the State can fix the rates?

Mr. CLARK. I think the industry as a whole would feel very much better than it does now if it was possible to conduct State regulation under those conditions, but I doubt if it would feel as well as it would under an automatic system, by which they were absolutely assured of these increases as they came up, and in which situation the judgment of no man or no set of men intervenes.

Mr. WARREN. May I interrupt for just one moment there, because I think it has a bearing on that Cleveland experience. Don't you think it may have this advantage, Mr. Clark, that as to any automatic rate the public knows that rate will depend upon demands for service; and therefore it affects just what the utility might consider

unreasonable demands; it tends to restrict unreasonable demands, because the rate is going to reflect the cost of this extra service?

Mr. CLARK. I think that is undoubtedly true.

Commissioner BEALL. Mr. Clark, don't you think that one of the things that worries the investor most now is that he does not know what he is going to get?

Mr. CLARK. Yes, sir.

Commissioner BEALL. And don't you think that the average investor would infinitely prefer an automatic rate—that is, under well-prescribed conditions, where it is not left to the judgment or whims or views of any men or any board of men?

Mr. CLARK. That is my idea exactly.

Commissioner BEALL. And he wants to feel sure of a proper return on his investment?

Mr. CLARK. Yes.

Commissioner BEALL. And a great many investors, I take it, feel that they can not leave that to any man; they must know what the conditions are.

Mr. CLARK. I think that is true, Mr. Beall.

Commissioner BEALL. I do not know, but it seems to me that the companies would infinitely prefer a State board to an individual man.

Mr. CLARK. Yes.

Commissioner BEALL. I do not think there is any room for argument on that, under the general conditions pertaining to securities.

The CHAIRMAN. Paragraph (d) suggests an indeterminate franchise. One of the large difficulties now concerning the utility is the limited franchise, with its many limitations.

Mr. CLARK. Yes.

The CHAIRMAN. How many States to-day permit an indeterminate franchise?

Mr. CLARK. That I can not tell you.

The CHAIRMAN. Wisconsin and Indiana?

Mr. CLARK. I know those two.

The CHAIRMAN. Do you know of any others?

Mr. CLARK. I do not. I think that information could be obtained for you, though.

Mr. WARREN. Most of the New England States.

The CHAIRMAN. Most of the New England States?

Mr. WARREN. I should say most of them.

The CHAIRMAN. I believe Massachusetts was the first one to consider it.

Mr. WARREN. Yes; unless I am mistaken, Maine, New Hampshire, Connecticut, Massachusetts, and I think Rhode Island, too; but I am not sure.

The CHAIRMAN. Of course, legislation has to be secured. Do you think that this commission would be performing a proper service if it recommends the use of an indeterminate franchise?

Mr. CLARK. Yes, sir.

The CHAIRMAN. Assuming that that was done, should the report simply contain a broad statement favoring the principle, or should it suggest the reasons why the indeterminate form of franchise is preferable to the limited franchise?

Mr. CLARK. I think a discussion of the subject would help immensely, undoubtedly.

The CHAIRMAN. Well, are there any substantial objections to that form of franchise, so long as the public is permitted, at any time, to purchase the plant at a fair value?

Mr. CLARK. I think not.

The CHAIRMAN. The right given to the public to purchase at any time would not affect the stability of the credit; would it?

Mr. CLARK. Depending, of course, on the terms under which they are permitted to purchase. I think that is a matter of detail, but we have got to assume that the terms of purchase as set forth in the franchise are fair and just.

The CHAIRMAN. Well, it presupposes the purchase on a fair value.

Mr. CLARK. Yes, sir.

The CHAIRMAN. Of course, no investor is going to put money into securities where they exceed the value of the plant; will he?

Mr. CLARK. No.

The CHAIRMAN. If he does, he is not entitled to very much sympathy from the public or community?

Mr. CLARK. No; I do not believe so.

The CHAIRMAN. Then, the investor would be entirely protected, under that plan?

Mr. CLARK. You mean if a paragraph was included in the indeterminate franchise saying that it could be purchased at a fair value?

The CHAIRMAN. To be fixed by the State.

Mr. CLARK. To be fixed by the State?

The CHAIRMAN. Yes.

Mr. CLARK. I think that would depend again on the confidence which the investor had in the particular State commission in which the indeterminate franchise was in effect.

The CHAIRMAN. Well, you are perfectly familiar with the fact that a corporation is protected by the Constitution; its property can not be condemned for less than its value?

Mr. CLARK. That is true. That, however, is under the general law of the State, but if you put a clause in the statute saying that the franchise shall be fixed at a price set by any particular commission—I am not lawyer enough to know, but it seems to me that that would be a waiver of the rights to protection under the general State law.

The CHAIRMAN. I do not think so. That is subject to the right of appeal to the court, of course,

Mr. CLARK. Yes.

Commissioner BEALL. May I ask a question right there, Mr. Chairman?

The CHAIRMAN. Yes.

Commissioner BEALL. In all of these indeterminate permits and other forms of franchises which permit purchase by the city on a valuation, is it not true that in practically all of them, just for the reason that we have described, they provide very carefully for the method of arriving at such a valuation?

Mr. CLARK. Yes, sir.

Commissioner BEALL. In other words, as I understand it, it is deemed by the investors and companies that it is absolutely necessary to define how that valuation shall be arbitrated and found?

Commissioner GADSDEN. Or it is fixed in advance.

Commissioner BEALL. Yes; but that is the same thing.

Commissioner GADSDEN. Fixed at the time.

Mr. CLARK. Yes.

The CHAIRMAN. Your paragraph (f) suggests the elimination of taxes and special assessments.

Mr. CLARK. Yes, sir.

The CHAIRMAN. Of course, these taxes and special assessments have proven extremely irksome during the war period. Prior to that, during the normal years, did they impose a large burden upon the industry?

Mr. CLARK. I think so; and I think there is one feature that has not often been thought of. If you will look into the capitalization account of those companies you will find a very large amount of capital which is there because the investment in paving and other municipal requirements, and which are fixed charges, are now paid by these companies. I have in mind that when the Rhode Island Co. was valued by a commission appointed by the legislature, it was discovered that almost one-tenth of its capitalization was due to payments made on account of paving and other requirements of that kind. So there is a charge that was saddled on that company, as I think, unjustly, and which to-day is keeping up the rate of fare in the cities of Rhode Island.

The CHAIRMAN. Now, under your cost-of-service plan, where your return is practically guaranteed, how can the paving assessment or tax matter affect you?

Mr. CLARK. It can not. I think that is largely a question between the car rider and the public as a whole. If the car rider cares to be indirectly taxed for the benefit of the property owner, that is a matter as between him and the property owner, except that I think it is particularly desirable, from the company's standpoint and from the public standpoint—from every standpoint—to keep those fares as low as possible, and therefore these imposts should be taken away.

The CHAIRMAN. Of course, the municipality has to have a certain amount of money to do business with.

Mr. CLARK. Yes, sir.

The CHAIRMAN. And it is a question of the most convenient way of getting it.

Mr. CLARK. Yes, sir.

The CHAIRMAN. So that, under the cost-of-service plan, the assessment does not do you any harm.

Mr. CLARK. Except that it may raise fares above a point where it would be impossible to get business to sustain them.

The CHAIRMAN. I suppose that is a matter that you will have to leave to the judgment of the regulating officials, as well as the city officers.

Mr. CLARK. Yes, sir.

The CHAIRMAN. Wherein can your assessments and tax features be harmful if the State commission has a right to fix the rate?

Mr. CLARK. I would not say that it enters into that phase of the matter. I mean that the question of impost did not affect the method of regulation at all.

The CHAIRMAN. All of these matters are items deducted from the revenue, and the commission has to take them into consideration.

Mr. CLARK. Yes, sir.

The CHAIRMAN. Then, do you believe that if you had either the cost-of-service plan or commission regulation of rates it would be necessary to the industry to have these special assessments and taxes eliminated?

Mr. CLARK. You mean, Mr. Commissioner, if you had city regulation?

The CHAIRMAN. Yes; or cost of service.

Mr. CLARK. As I said before, I think I have answered that question when I said that that is a question which, in my opinion, should be decided between the car rider and the taxpayer. Personally, I see no justice in assessing the car rider for something that somebody else benefits from.

The CHAIRMAN. Then, your paragraph (h), dealing with special taxes and assessments, was put in there with some qualifications, was it not?

Mr. CLARK. No; I do not believe it is put in there with any qualifications, Mr. Commissioner, because that is my opinion.

The CHAIRMAN. Yes; but it is not essential to the welfare of the industry, is it, that these taxes and special assessments be eliminated?

Mr. CLARK. It is not essential, but very helpful, because it keeps the cost of service down, and thus keeps your fare low; and I think a low fare is very essential, wherever it can be put into effect.

Commissioner BEALL. I just wanted to bring out the point, Mr. Clark, that for the success of the cost-of-service plan, or any other plan, the majority of the people, being, in a sense, of the poorer class, consequently the majority of the citizens of any town, being riders, would feel better if they felt that the taxation was scattered, that they were not burdened with something that increased their fare, and that the property owners and the automobilists and others were not paying their fair proportion of it? Would it not tend toward a better feeling if they thought that taxation was better distributed?

Mr. CLARK. Undoubtedly.

The CHAIRMAN. Taxation is a matter of local law, and it depends very much upon the conditions pertaining to the proper upkeep of the city. Do you think it wise for a Government commission to come in and recommend the removal of all taxes and special assessments?

Mr. CLARK. I think it would be very wise for you gentlemen to say these two things: First, that it is a question as between the car rider and the general public, and second, that it has a direct effect upon the rate of fare to be charged.

Let me give you an instance where that was very concretely shown. In a city in central New York, a paving program for this year called for an expenditure of some \$500,000 on the part of the city company in laying pavements, reconstructing its track, and so forth. The company did not have the money and did not have the credit. It could not borrow money. It went to the city and said, "If you will allow us to charge a cent for a transfer in addition to the fare that you are now paying, we will devote all of that money to paying these charges." Now, there was the situation that was thus created. The proposition was to take a cent out of each person that used the

transfer, and to use it for the benefit of the man who might or might not be a car rider, but it was very much more apt to be an automobile owner, in order to pay for that improvement.

I think that that concretely points out what I wanted to show you, Mr. Commissioner.

The CHAIRMAN. I have no further questions.

Commissioner SWEET. Mr. Clark, this statement that you made here is brief and right to the point, and it is based, I judge, from looking it over, upon what you have heard said by the witnesses that have been introduced up to this point in this case, largely.

Mr. CLARK. Yes, sir.

Commissioner BEALL. Which paragraph is that, Mr. Sweet?

Commissioner SWEET. No particular paragraph, the whole of it.

And it represents what you consider, at least, the best thought, the best suggestion, the best recommendations that have been made here, in view of the facts that have been disclosed?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Has there been, so far as you know, anything said here with regard to the paving question that distinguishes between the general public and the abutting-property owner?

Mr. CLARK. No, sir.

Commissioner SWEET. Is there not something to be said on that point? Is there not the thought, for instance, or the argument that might be presented, that the street-railway track in the street is a burden upon that street and perhaps an inconvenience and an annoyance, both, to the people residing upon the street, and that the relief that is given by requiring the street-railway company to pave between the tracks is a relief to the property owner upon that street, rather than to the general public, under the usual provisions in street-car charters with regard to taxation and street building?

Mr. CLARK. Well, Mr. Commissioner, what you say about its being, perhaps, an annoyance as well as a benefit I think is true, in general, and as reflected in the mere matter of finance I am convinced that the presence of a street railway on most streets—not all streets, but on most streets—is a direct benefit to the financial interests, at least of the property owner.

Commissioner SWEET. It is an asset and not a liability?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Do the facts with regard to property values justify that statement?

Mr. CLARK. I think so. I would not say so in every case, because I do not know enough, and I have never gathered statistics, but it is unquestionably true that real-estate values increase where extensions of lines are made or where railroad tracks exist. If you are now considering whether the abutting-property owner or the public in general should pay for all of the pavement, I think that is an entirely different point; and if you say that it is a general charge against the public, or should be a general charge against the public instead of the abutting-property owner, I am rather inclined to agree with you, although in the city with which I have had some experience it was entirely different.

Commissioner SWEET. Is it not a fact, under most of the city charters throughout the country, that it is charged against the abutting-property owners?

Mr. CLARK. Well, I don't know that. I know in some cities it is not, and it is paid for from the city tax budget.

Commissioner SWEET. Most of the cities with which I am familiar make that a charge upon the abutting property owner.

Mr. CLARK. Yes, sir.

Commissioner SWEET. Not only the original construction cost but subsequent repairs or reconstruction. Upon that point I am inclined to think that, if the original construction is charged to the abutting-property owner, that ought to end at least any charge or assessment that could be made against him for that street paving, and repairs should be entirely made by the city. I think that would result in better continuous repairs and pavements, and not let them go into absolute scrap, you might say, and require the rebuilding of the pavement, because it will place then upon the city government the responsibility of keeping that in repair, or else, by general taxation, rebuilding it. In that event, I think the city generally would take more pains to keep the street in better repair; and I think it would be more just; and I am not prepared to say that I would not be willing to go this far—no matter what the situation may be now, the charge should be on the general public from the beginning for construction and repairs; but, in any event, this is true, and evidence has been adduced which confirms it; and I think it is a matter of good judgment that the burden should not be placed upon the street-car rider. If you recognize the fact that the street-car is what it professes to be—a public utility—and that it performs valued service in the economics of our municipalities, with its tendency to diffuse population, and as a convenience, so that the people can live in the suburbs and have their little gardens and plenty of breathing space, and still do business in the city—if we recognize that feature of it, no one can deny the benefits of a street-railway system. Then it would seem to be logical that every extra burden ought to be removed from the street-car rider and, so far as may be, placed upon the general public, which really gets the benefit of the street-car service, thereby keeping fares down not purely, as you, I think, have rather intimated, for the benefit of the street-railway companies and in order to prevent public criticism on account of high fares, but for the general good. Perhaps I misunderstood you.

Mr. CLARK. Yes, sir. Mr. Commissioner, I did not intend to convey any such idea. My idea was this, in relation to low fares, that it is distinctly for the benefit of the car rider to give low fares. It is distinctly for the benefit of the community to give low fares; and it is also for the benefit of the stability of the industry that these low fares should be in effect, if it is a profitable thing.

Commissioner SWEET. Then, the fact that the State commission did automatically arrange, under the service-at-cost plan, for a higher cost to the rider, as it naturally would—it would not entirely meet the situation, if we wanted to readjust matters completely so as to bring about a better situation on the whole; would it?

Mr. CLARK. I do not know that I got your question, Mr. Sweet.

Commissioner SWEET. Well, a broad consideration of the whole subject, for the benefit of the whole community, would not be satisfied with merely protecting the operating company by having all of its cost taken care of by the service-at-cost plan or by an intelligent

commission that might give it the benefit of raising its rates to meet the extra cost of riding.

Mr. CLARK. Yes.

Commissioner SWEET. So that of itself would not meet the situation with regard to the entire community, although it might as regards the operating company?

Mr. CLARK. You mean there might be a question as to whether, under the rates of fare granted by the commission or by this automatic plan, the service would be sufficient to serve the community?

Commissioner SWEET. I mean that, so far as the company is concerned, as Mr. Elmquist indicated to you in the question he asked you, it would not make any difference what the actual cost was, what the fares might be, provided they produced enough revenue to meet the requirements of the company.

Mr. CLARK. Yes, sir.

Commissioner SWEET. Now, as between the car riders and the balance of the community, it would make a difference?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Whether the whole community bears that paving expense or the riders bear it?

Mr. CLARK. Yes, sir.

Commissioner SWEET. And I say that, taking a broad view of the interests of the entire community—the car rider and all the rest of the community—it would be better, would it not, to have the fares low, thereby putting a premium upon diffusion of population, than it would be to have them high, even though they be met just as well if they were high as if they were low?

Mr. CLARK. Undoubtedly, Mr. Commissioner.

Commissioner SWEET. Is the distinction between the car rider and the balance of the community properly understood at the present time throughout the country?

Mr. CLARK. I doubt it.

Commissioner SWEET. With regard to these taxes?

Mr. CLARK. I doubt it.

Commissioner SWEET. Do you consider there is a very great proportion of the people at the present time who realize that this burden is placed upon the car rider—the paving burden?

Mr. CLARK. I think it developed in the testimony of Mr. Culkins here the other day, when he talked about the insistence on the part of the city of Cincinnati in the collection of this sum of \$300,000, and in the higher cost of service in Cincinnati, simply because it was impossible to explain in the limited time that they had that this was to be a charge on the car rider.

Commissioner SWEET. Don't you know that in the matter of water supply it is quite a common custom in cities for a board of public works to furnish water for parks and cemeteries and for fire protection without any charge?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Do you think that is a good practice?

Mr. CLARK. I do not.

Commissioner SWEET. Does it not involve precisely this question that we are talking about?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Is it not throwing upon the water users the burden that ought to rest upon the entire community?

Mr. CLARK. Exactly.

Commissioner SWEET. And in some of these communities where there are private corporations furnishing water in competition with the city, which is sometimes the case, might it not result in a user of water furnished by the private corporation getting the benefit of fire protection and other benefits that he did not pay a cent for?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Through the city system?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Is not that an evil that ought to be corrected?

Mr. CLARK. I think so.

Commissioner SWEET. Of course, we have nothing to do with that, but the principle involved is precisely the same, is it not?

Mr. CLARK. I think so.

The CHAIRMAN. May I ask a question there, Mr. Sweet?

Commissioner SWEET. Yes.

The CHAIRMAN. If that principle were to be adopted, would it not result in New York City in eliminating, perhaps, 90 per cent of the population from the payment of any direct or indirect taxes for the support of the city? In New York there is a very large number of people who live in tenement houses. They do not own their own homes. They have very little taxable property. The great mass of them have no taxable property. They do not pay a cent in support of the water system; they do not pay a cent in support of the school system; and they would not pay a single penny in the way of tax for the paving or other things if that be paid by the city from taxes. Now, it would not be fair to relieve this great body of untaxable people from any contribution to the upbuilding of the city, would it?

Mr. CLARK. My experience in New York has been this, Mr. Commissioner, that while the taxes are assessed against the owners of these properties they are paid by the tenants in the matter of rentals.

Commissioner MEEKER. Is it not a fact that everybody on the right side of the walls of penal and other institutions pay taxes?

Mr. CLARK. I think so; directly or indirectly.

Mr. SULLIVAN. Let me suggest there that the man who pays the rent pays the taxes.

Commissioner SWEET. Now, Mr. Clark, one other point: Whether the service-at-cost plan be adopted, or regulation by the commission, municipal or State, be adopted, do you regard that as a matter of importance that the actual cost, with the rates and the fares and everything else, should be kept as low as possible?

Mr. CLARK. I do.

Commissioner SWEET. You agree, I presume, with the testimony that has been presented here, that the maintenance of the street railways requires the constant increase of capital, the influx of new capital?

Mr. CLARK. Undoubtedly.

Commissioner SWEET. And that these companies can not continue to exist and perform their proper function without new capital. Is not that true?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Then anything that increases the cost of obtaining new capital is a burden which ought to be removed if it can be. Is not that right?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Is not the certainty of return a very important element in connection with the investment of new capital in any enterprise?

Mr. CLARK. Oh, yes.

Commissioner SWEET. Do you consider that the certainty of return is greater under an automatic plan, where the whole thing is mapped out in advance, than where it is left to any human interference, as would be the case in State or municipal commission regulation?

Mr. CLARK. I think there can be no question as to that, Mr. Commissioner.

Commissioner SWEET. If that is true, would it not be then an argument worth considering in favor of the service-at-cost plan as it has been outlined here?

Mr. CLARK. I think so.

Commissioner SWEET. Where the rates would go up or down according to the actual needs?

Mr. CLARK. Yes, sir.

Commissioner SWEET. Do you think so?

Mr. CLARK. Yes, sir; I think so.

Commissioner SWEET. I think that is all.

Commissioner GADSDEN. Mr. Clark, I want to ask you just one question.

What do you consider the pressing need of the situation?

Mr. CLARK. The immediate need?

Commissioner GADSDEN. Yes.

Mr. CLARK. Increased revenues for the companies that need them; and that means practically every company in the country.

The CHAIRMAN. The long green?

Mr. CLARK. Yes, sir.

Commissioner GADSDEN. Unless that immediate need can be properly taken care of, do you see any advantage in our continuing this discussion as to a permanent solution? Would it not be largely academic?

Mr. CLARK. I think so, Mr. Commissioner, because, although I am rather familiar with the New York City situation, I was very much surprised and shocked to hear Mr. Quackenbush say that, unless they have some relief of some sort, the Interborough Rapid Transit Co., operating the subway and elevated systems in the Greater City of New York would be in bankruptcy after January 1. I think that epitomizes the situation with regard to the street railways of the country.

Commissioner GADSDEN. If the credit of the Interborough of New York is destroyed, what is to become of some of the little fellows?

Mr. CLARK. Yes, sir.

Commissioner GADSDEN. I have no further questions.

Mr. WARREN. Well, really nearly every company that has any bonds accruing, even if it is getting along with operating expenses,

would be in the same position as the Interborough, unless relief is brought to restore its credit.

MR. CLARK. I think so, Mr. Warren.

MR. WARREN. And that relief, you believe, should come through an immediate increase of fares?

MR. CLARK. Yes, sir.

MR. WARREN. Laying aside the ordinary delay in ordinary rate cases, and perhaps quite appropriate ordinarily—

MR. CLARK. I think an emergency exists, and it should be treated as such.

MR. WARREN. And rely on the power of the commission to correct any overliberality of which they may be guilty?

MR. CLARK. Yes, sir.

Commissioner SWEET. I would like to ask another question. In the plan that you have outlined here, you seem to be looking forward to a new day and one of cooperation between the general public and the corporation, rather than one of antagonism. In order to carry out that idea more completely, does it not seem to you as if the immediate community concerned ought to have some voice, either through a commission or some other way, with regard to the continuing arrangement that might be made, rather than to have the matter taken immediately to a State commission—either as Mr. Elmquist suggested, through a local commission, from which an appeal might be taken, or in some other way—that the immediate locality would feel more in accord with the general proposition and cooperate better if the subject were not removed from the immediate community and carried right on to the State?

MR. CLARK. I will answer that by saying this, that my thought is that the immediate interests of the man that uses the street-car service are in the service, and what he wants is to be carried comfortably and expeditiously from one destination to another; that if that service is provided by whatever means, he is going to be fairly content with the good service, and that will do more toward reconciling the public and the companies than any other one thing. Now, I believe that, in some way, if the alternative of commission regulation is accepted, the city should have some way of expressing its wants and needs in the matter of service. I believe that the other matters connected with the regulation might properly be left to the State commissions, and even this question of service might find in the commission its ultimate decision.

Commissioner SWEET. Do you think that having a director representing the public, as they have in Cincinnati, fills the bill? Does that answer the necessary requirements of the case?

MR. CLARK. This, in my opinion, Mr. Sweet, is a new thing. I do not think it has ever been put into practice, this cooperation between the city and the State in the regulation of utilities, and therefore I am not competent to tell you in detail how the thing should be effected.

Commissioner SWEET. But, as a matter of judgment, does it not seem to you to carry out the general idea of this plan, which is one of friendly cooperation, that there should be a sort of working together of the city and the company?

MR. CLARK. Yes, sir; I believe so.

Commissioner SWEET. Now, would that idea be encouraged and carried out if you had a large representation on the board of directors of the company from local citizens?

Mr. CLARK. I think the two principles are not the same. If you are putting representatives of the public on a board of directors, you are dividing the responsibility for the performance of the service as between the community and the company itself. If you are permitting the public to specify the service, you are putting all the responsibility on the company where, I believe, it belongs.

Commissioner SWEET. Well, one of the witnesses suggested that a part of the prejudice against the street-railway corporations was because they were usually owned by nonresidents.

Mr. CLARK. Yes, sir.

Commissioner SWEET. Or practically owned by nonresidents.

Mr. CLARK. Yes, sir.

Commissioner SWEET. Did you hear that?

Mr. CLARK. Yes, sir.

Commissioner SWEET. You think that is true; do you not?

Mr. CLARK. I think, Mr. Commissioner, that that, like everything else, is one of the excuses or one of the means of combating a street railway, seized on after something other than the mere fact that it is owned by somebody else, which has caused disturbance between the company and the public.

Commissioner SWEET. I think Mr. Clark made that statement; did he not?

Mr. CLARK. Mr. W. J. Clark?

Commissioner SWEET. Mr. W. J. Clark.

Mr. CLARK. I don't know. I didn't hear it if he did.

Commissioner SWEET. That is all.

Commissioner BEALL. There is just one point that I would like to take up. I am not sure, Mr. Clark, that this has been thoroughly brought out in any of the hearings—but is it not true that the average investor nowadays, unless there is a continuing right, such as an indeterminate permit, coupled with the right of purchase, will not invest; that is, that the investor is not only concerned with a good rate of return, agreed on, but above all the final return of the principal of his investment?

Mr. CLARK. Yes, sir.

Commissioner BEALL. And unless he knows that one of two things will happen—either he will get a continuous right to operate the property, or else, if it is bought, it will be at a price that will leave him whole as regards his principal?

Mr. CLARK. Yes, sir.

Commissioner BEALL. And is it not true that for many years now, one of the greatest difficulties with all public utilities in raising new money or in refunding an old debt that comes due has been on account of the fact that in too many States there was a provision limiting the franchise by State law to 20 or 30 years, or whatever it may be, and that if they had an obligation coming due and a franchise maturing at that time, or a few years later, or even five years later, the company could not refund, except at a very short-time obligation, at a very high rate of interest?

Mr. CLARK. I think that is true. That is the way I would look at it if I were an investor.

Commissioner SWEET. Do you think, Mr. Clark, that with these rather short-term franchises, as the end approaches, a consideration of the granting of a new franchise becomes prominent in the public mind, and do you think that that has anything to do with the fostering of the spread of antagonism between the company and the community?

Mr. CLARK. Oh, undoubtedly.

Commissioner SWEET. And the indeterminate franchise would tend to do away with that?

Mr. CLARK. Yes, sir.

Commissioner BEALL. The politician takes advantage of it.

Commissioner SWEET. Sure.

Mr. WARREN. Prof. Jenks, will you take the stand?

STATEMENT OF MR. JEREMIAH W. JENKS.

Mr. WARREN. Your full name, Prof. Jenks?

Mr. JENKS. Jeremiah W. Jenks.

Mr. WARREN. And your occupation?

Mr. JENKS. I am research professor of government, New York University.

Mr. WARREN. And in that position you have had occasion, I suppose, to study almost all phases of government, particularly of these utilities and their relation to the Government?

Mr. JENKS. I have made no special study of the electric railways, but in a number of cases in connection with my university work and in connection with some Government work, I have been called upon to look right carefully into the relations of government and business in general.

Some years ago, for example, I had charge of a Government investigation into the larger corporations and trusts for the United States Industrial Commission, and later I made other minor investigations in connection with the relation of government to business.

Mr. WARREN. You are familiar with the appointment of this commission and with the problem with which they are confronted here?

Mr. JENKS. Yes. I have understood from the public press and from information gathered in various places that the electric railways have been in very serious financial condition indeed, and that the President thought it wise to appoint this commission to make a particular investigation and see if they could suggest remedies.

Mr. WARREN. And can you, and will you, be good enough to state to the commission your views on this question and on this situation? And would you rather do so without the interruption of questions from me?

Mr. JENKS. It will be just as well, perhaps, to begin with, and then I should be glad to have any questions later on.

Mr. WARREN. I will ask you any that will help matters.

Mr. JENKS. It had seemed to me that, inasmuch as I am not a technical expert on these railway questions, I perhaps should begin by stating very briefly what my views are as to the relation of government and business, for two or three minutes, and then take up more specifically these things.

I have felt for a long time—from the public press and elsewhere one gathers the impression—that the real social significance of business as business is not understood and appreciated. When one considers the problems that managers of business have to consider, not merely as regards earning dividends for their stockholders but problems with their wage earners and customers of all kinds, the fact that almost everybody in the community is engaged in business in some capacity or other, that is, he is attempting to render some service and get paid for it, business after all is the greatest and perhaps most difficult social science that there is.

An attempt to formulate the general principles upon which business is to be done needs to be based absolutely upon the actual facts of business, the main fact, perhaps, being the business man himself, his character, his ideals, and his purposes. That concerns all of us from that point of view.

Now, on the other hand, as I understand it, the Government, when you speak of it specifically, regardless of the men who are doing the work for the city, is a sort of grand committee that under our laws we have picked out to do our work for us.

The consequence is that when we are speaking of government and business and the relations of government and business we are, after all, largely speaking of the same people doing things from different viewpoints, one from the regulating end and the other the people who are actually doing work; so that there ought not to be in reality, as in essence, any conflict. It should be the business of the Government, as representing the people, to help on business. As long as it is helping it in ways to promote the best interests of the people as a whole, any special feeling of antagonism that some people seem to have, or wish to set up, is really out of place in any proper view of government and business.

It has been suggested that the electric railways have not been paying proper expenses, generally speaking. That, to my mind, is a public calamity, not merely to the owners of the stocks—and in many cases this condition is apparent to the bondholders—but also of course to the traveling public, as we found out during the war.

If we are going to find a remedy, the first thing, of course, is to find exactly what the facts are; and that is what this commission is appointed for, I suppose.

The causes, as they develop, seem to begin with, I should say, the increased expenses that necessarily have come from high prices of all kinds and from high wages, which have normally developed out of the present conditions and the war conditions.

Another way of putting it is that it is the inflation, if you like, of our currency and credit. That has been the fundamental cause of this increased cost of living, while the fixed fares have not gone up correspondingly. There was no other way out. The trouble must come.

The offhand remedy, one would say, to begin with, would be, of course, to raise the fares proportionate to the increased expenses; and there is where, of course, we get into difficulty at once.

It has seemed to me from a study of similar questions along other lines that where the public really understands the question it is not prejudiced against a reasonable, moderate return to capital, and I

believe that if this commission can get itself clearly before the public, so that the public knows what the facts are along this line, there will be no special objection on the part of the patrons to paying a higher rate of fare. Of course, they will regret it, but it is a part of the normal business, and they are getting it back in higher wages and in other ways. There will be objections, of course. We have had plenty of experience, if one may judge by some of our papers in New York and elsewhere. Where anything of that kind is attempted, it is looked upon by many—and they seem to wish to promote that idea among the voters in general—that the people that are owning and managing these public-service corporations are trying to get something extra out of the people, more than they have had before, and it is a burden on the people, or a burden on the workingmen. It depends on how they are putting it.

It seems to me that where that is apparently a deliberate attempt to mislead, as it often is, for special political purposes, an attempt to furnish some kind of political propaganda, it should be met directly by telling the facts officially to the people; and I see no reason why it is not a very wise policy for the public corporations themselves to give the facts. Of course, we know that as to facts given by the public corporations, they would be considered to be interested parties, and are often discounted by a good many; but after all, facts are facts, and they do carry weight. Some of the railways have done admirably along that one line, and it has had some weight, as in the case of the telephone companies; and if the real facts would come from this commission it would help a great deal more.

There doubtless have been at times great difficulties that have been caused either by earlier mismanagement or perhaps by present mismanagement in individual cases. I think there is no question that in the early days, more particularly when franchises were given away very freely, there was often a good deal of watered stock, and so forth, and attempts were made to pay dividends on a larger capitalization than was for the good of the public. That is a matter for investigation into the individual cases wherever that is found. The remedy in most cases, I suppose, would be in due time, at any rate, in the hands of the commissions and courts. At any rate, when an attempt was made to develop further along that line, it clearly would be.

I have felt also that some very simple principles of business should be developed among the public, as far as possible.

For example, all of us have doubtless heard hundreds and hundreds of times statements made by people that are promoting the interests of the laboring men that implied that wages could be raised, and that as a permanent thing, out of the profits, out of the wages of the managers, and so forth, and not realizing the fundamental fact that in any business it is out of the value of the product that the wages and interest on the capital and the wages of the management, in case there is to be any special benefit to the consumer from lower prices, has to come. It is out of the product itself.

Now anything, then, that can be done to increase the value of that product—in this case, of course, as I say, the remedy is to raise the fares—produces a fund from which all of these things can be handled.

If, on the other hand, through great skill in management, the costs can be lessened along any line, that, of course, increases the fund out of which wages can be paid, and interest, and so forth.

So that fundamental idea, which is certainly not in the minds of hundreds and thousands and millions of laboring men, I think, is one of the first things to be driven into the heads of the American public, as far as possible—that we have to look after the value of the product, and these things are to be taken out of that, and no one of these groups in business can permanently go ahead at the expense of another group. The business can not stand for that at all, and won't do that.

I think the difficulties that have come along that line, and a good deal of the trouble that has come to the street railways, as well as to others, has come from the advocates of certain special political elements, the extremists in favor of municipal ownership, the socialists, and others.

I perhaps may, in just a word, express my own view on that question now of municipal ownership.

I have no doubt that there are certain localities, particularly the smaller towns, where everybody knows everybody, and particularly where an opportunity could be had for combining the street-railway system—the power there with the electric lights, and things of that kind—where municipal ownership might work, and work to advantage; but, speaking generally, the experience, not merely of this country, but of the best of Europe, is against municipal management generally.

I think my own experiences along that line have been most marked in work that I have done from time to time in association with different departments of the Government.

But the reason for it, to my mind, is absolutely fundamental in human nature. When we have a business carried on primarily for the purpose of normal profits, under conditions, of course, implying honesty of management and things of that kind—we had the management—and if the workmen are properly treated and properly handled, they should recognize the fact that they need to put forth their best energies and their best intelligence, their interest in the business, and stick right on the job and not waste time. I have known some very striking cases, for example, of individuals, absolutely unskilled workers, who, when they got a change of heart along that line, increased their output amazingly. I know one specific case, for example, where a young man in a shop was simply feeding an automatic machine, stamping up triggers in a gun shop. His normal output, which was as good as that of the average of the shop, was about 260 a day. The boss came along one day and told him that he was going to raise his wages 25 cents a day. He was a faithful sort of a fellow and got to thinking the matter over. He realized that, perhaps, he had gone to get a drink a little oftener than was necessary, looked aside to other people a little oftener than was necessary, and he said to himself, "Old George has been pretty good to me; I will see what I can do for him." So he got on the job the next day and did not waste a minute of the day, all day long. He did not work any overtime, but he simply worked carefully and faithfully, and he turned out that day instead of 260, 460 pieces, and he said, "I can easily average 400."

There is an example of what an absolute change in spirit only will do.

Now, it does seem to me that, in connection with private management, you can get that spirit all through the organization from top to bottom much more easily than you can in the case of Government management of any kind.

As I have said, I have had more or less experience in connection with Government management, and it is a necessity in many cases, but I believe it is much more difficult to get that spirit in the first place. In the second place, you can not pick and control your men nearly so well. I have been for many years an advocate of civil service reform all along the line, not because I thought it was the ideal thing at all, but because it was the lesser of two evils. Under civil service, the difficulty is not so much in getting the man, but the difficulty is in getting rid of him. Anyone who has had any experience with it knows that it is absolutely impossible to get rid of those people that you do not want. I know of a case where, for three or four months, they had been trying to get rid of people whom they knew were dishonest. Now, in a private establishment that would be done easily and pleasantly.

So it seems to me there are those two things.

The third thing, which is not along the same line, is this: In the case of public management the idea of a profit or a tax does not come in at all. That is where I think we have been making very many fallacious conclusions with reference to our war work. The war work, in many cases, was done remarkably well, but it was done regardless of cost. It was simply to get the biggest output possible, regardless of cost. When peace comes we can not run on that basis any longer. We have an example of that in some of this beautiful printing in Government reports. It is done absolutely regardless of cost. You can not do that in private work. You have to hold the costs down. On the other hand, if in all private enterprise you do not give excellent service, you can not get your price.

Now, it is doubtless true that when people are working equally conscientiously in both cases, the Government on the one hand and the private individuals on the other, they will come pretty nearly to getting results, but that is assuming the ideal in both cases, and you do not get it in both cases.

Another difficulty that has come in has been the very slow action on the part of the commissions where they have had to make decisions and of the courts when they have had to make decisions. I do not feel that I am really competent to express a very definite opinion on that, because I have not investigated the cases; but, generally speaking, we know our courts have been very slow, and one of the chief movements among the lawyers has been to expedite the work of the courts by a reformation in methods of procedure. I have no doubt that that would run all through this work, as well as elsewhere.

Other difficulties have been due at times to differences of opinion as to the proper method to be applied, the proper theories, if you like, that should be applied, as to division of earnings, or as to the amount of return on the capital invested, and as to the area in which you are to fix the amount of capital upon which you should pay the return, and so forth.

There is a real legitimate basis for a difference of opinion there, and in thrashing these differences out, as I am informed, also in attempting to harmonize the views at times of courts and commissions, there have been very serious delays.

Now, I suppose that there is an opportunity for the commission's recommendations to be of great service. If the commission can make definite, positive recommendations as to the basis on which the returns should be calculated and as to the general methods that would be followed that can be made as nearly automatic as possible, it will save a lot of time along those lines, and I imagine in a good many cases also, as it has been the opinion about the Interstate Commerce Commission, too much work has been loaded upon commissions. I have no doubt that that is true in other cases. There, again, Government can help by providing the right kind of commissions properly equipped, all the way through.

Now, I should suppose that the work of the Federal Government would be primarily this advisory work. We know that in the different States there are many cases where we have State commissions, for two or three reasons. In the first place, when it comes to questions of accounting, it is very desirable that there should be some uniform system of accounts, for the keeping of costs and things of that kind. That would be determined by the State commissions. You are not very likely to get the different municipalities to be working together so that they will keep their accounts in the same way, so that comparisons can be made, unless you do have some central power. I think something should be done along that line.

I speak with some hesitancy with reference to expressing any opinion as to the proper basis; but many years ago, in connection with certain European contracts, it had seemed to me that the suggestion was an excellent one that, when contracts were made with these corporations providing for rates of fare, returns, and so forth, perhaps the most satisfactory work as it would occur to me—a theory, without practical experience—was to provide that rates of fare or income from whatever source be large enough, so that there would be no possibility of not earning a minimum amount, a minimum return on the investment. Then, as would be expected in most cases, there would be a return above that, and that methods should be had for a proper division of the surplus return between the corporation concerned and the municipality, with an increase in the proportion to the municipality as the profit increased. There are two or three reasons for that. If you give the municipality a portion above a certain minimum, then at once the incentive is gone to keep up efficiency. If, on the other hand, you give the corporation a continual likelihood of greater earnings, no matter how good its service is, it will keep that stimulus on them; and the probability will be that with that stimulus there the city will get more, too, on account of the more efficient work than it otherwise would. For example, take 5 or 6 per cent. I do not want these figures to be understood as one that would have my final judgment. I have not studied the question enough. Then, we will say from 5 to 8 per cent, the division is half and half, and above 8 two-thirds or three-quarters to the city. You still would have the stimulus to the corporation, and in that way I think you would get a better arrangement.

Let me repeat that I speak with great hesitation on these things, because it is not my real field, but I was interested in the subject for years, and I have read a good deal on it.

I have felt also that it is very desirable that some method of calculating these returns be made that can be flexible, that can be uniform, that can be adaptable, so that one does not need to be changing rules all the time.

I wonder if I might be permitted to give an illustration from another field that I am rather more familiar with.

There came into my own experience three or four years ago a question of this kind. One of the governments in the Far East wanted to buy some millions of ounces of silver, which had been tied up in Europe and practically speculated on in the limited market. Moreover, the rates of freight from London or from anywhere in Europe to the Far East are higher than they are from San Francisco. A very large part of the American silver is shipped to London, to begin with. So the suggestion was made that the Government make a contract with our biggest American producer of silver to be allowed to take as long as it wanted to a certain number of thousands of ounces a month at a rate based on the London market price. The London market price was to be taken as the average, if I recall rightly, of the preceding two weeks. That took the element of speculation out of it entirely. On account of the lower freight rate, it assured the Government something like, if I recall rightly, a quarter of a cent an ounce, at least, with the cheaper rates, than they could buy in London on. Then another article of the contract said that this is a self-perpetuating contract that may be suspended temporarily by either party, and then may be renewed again by consent of both parties. The idea was that that kind of a contract, based on the London market and, for that matter, the rate of interest also made flexible and depending upon the rate of the Bank of England, was successful and adaptable to market conditions, and there was no reason why that should not be run for 20 years.

It seems to me that in any of these cases where we are making contracts with the corporations and the Government it is difficult to get those things through, and if, when they are made we could put them through in some form that would be more or less self-adapting to varying conditions, it would have a great deal of time. In the long run it would doubtless be much more satisfactory, and much help all along the line could be done there. Now, how it should be done is, of course, something that I do not know anything about.

It might also very well be that, in making contracts of that kind, the franchise—I think normally they should be limited, because we cannot foretell the future long enough—would become practically a perpetual franchise. I am against perpetual franchises, on principle.

The CHAIRMAN. On that point, let me ask you one question.

Mr. JENKS. Yes, sir.

The CHAIRMAN. Do you believe in the indeterminate franchise, subject to the right of the city to buy the plant?

Mr. JENKS. To buy the plant?

The CHAIRMAN. Yes.

Mr. JENKS. Yes; I have advocated that a good many times, especially of late years. The more I go into these questions, the more

I put emphasis upon the fact that, while it is worth while, perhaps, to retain the option to buy, you had better not buy unless the cases are very exceptional.

There again, let me repeat what I said before. I think your public ownership with private management is often a very good combination. When I was thinking of buying, and when I spoke so emphatically against buying, it was with the idea of municipal management also.

Commissioner BEALL. Professor, let me ask you there whether one of the principal things that a company has to do is to continue to raise money.

Mr. JENKS. Yes, sir.

Commissioner BEALL. Would you put any money in a street railway of your own? For instance, suppose I wanted to sell you a 20-year franchise—and they do have 20-year franchises—would you put your money in it?

Mr. JENKS. I think that, so far as that is concerned, if you have your proper contract, your proper supervision by the State commission, and so forth, then that is not so serious a difficulty.

Commissioner BEALL. Well, but it has been. That is just what comes up. What happens at the end of 20 years?

Mr. JENKS. I wonder if that does not depend upon the character of the franchise there in the first place?

Commissioner BEALL. Well, but that franchise is ended. You have no further right. Would you take that risk?

Mr. JENKS. Of course, this is true. The bonds that were issued under that franchise are good.

Commissioner BEALL. They are not good if you have not the right to operate.

Mr. JENKS. Well, that is true.

Commissioner BEALL. Would you put your money in it?

Mr. JENKS. Yes; I would.

Commissioner BEALL. On what theory?

Mr. JENKS. On this general theory, which I think is perfectly sound, that if you have been able to get a good franchise, particularly of the type that I have had in mind, the chances are speculative; but speculation is not a very serious difficulty. The chances are reasonably good, just as good as the contract's being continued.

Commissioner BEALL. Would you put your money in anything like that when you have a lot of other things offered to you that will pay, perhaps, just as well or better, and where you do not have to take that risk?

Mr. JENKS. Well, yes, I know that.

Commissioner BEALL. There are a number of things where you do not have to take that risk.

Mr. JENKS. No.

Commissioner BEALL. Why take that risk if you do not have to?

Mr. JENKS. Your rate of return may be a little higher.

Commissioner BEALL. Well, it is not.

Mr. JENKS. You doubtless will find many individual cases of that kind. Now, let me reply on the other side. The reason for a somewhat shorter permit—I had not suggested 20 or 25 years as the lowest; I had suggested 25 or 30 years as the lowest that I had in mind, but that is immaterial.

Commissioner BEALL. Let me ask you right there: You are familiar with the fact that where a company has a 25-year franchise, or whatever term it be, and it is about to expire, and the securities are coming due, either at the same time as the franchise expires or maybe some years previously, it is very often the case that it is practically impossible to renew those obligations?

Mr. JENKS. I should think it would; yes. The other conditions are aside from these very abnormal conditions.

Commissioner BEALL. But to a very great extent that has always been true in good times.

Mr. JENKS. Doubtless it has.

Commissioner BEALL. This thing would have to be handled for a very short time at a very high rate.

Mr. JENKS. May I give in just a word my reason for suggesting that alone and not a perpetual franchise?

The conditions in every community are pretty rapidly changing all along the line. I do not think we can foretell conditions very far ahead, and I should say that if we were to go back 50 years—now, I have not gone through the books on it, but from the general information that one has—I should say that if we were to go back 50 years we would find that the difficulties that had arisen in many cases—of course, I am not saying in all, but as a general thing—have been, in the first place, due to a franchise given that was very valuable, or else it had been overcapitalized, or else the corporation had conducted its affairs in such a way that there was some real legitimate cause of complaint against it that had stirred up a hostility that was more or less justified.

Now, along the lines that I have suggested, if the corporation has managed its business in the right way, and the public has been properly informed, I do not think there is any special likelihood of the corporation's being plundered by the public. I grant there are exceptional cases, and I am as afraid of the politicians as you are.

Commissioner BEALL. Unfortunately, it is the politicians that do it.

Mr. JENKS. I am as afraid of the politicians as you are.

Commissioner BEALL. Now, is not this true that, all things being equal, you are going to put your money in the thing that offers the best security?

Mr. JENKS. Oh, surely.

Commissioner BEALL. And if a street railway, through having a short franchise, or a limited term, has to compete against something which is very much better, with another form of security, the street railway is going to suffer.

Mr. JENKS. It will have great difficulty in getting it.

Commissioner BEALL. Is it not just as important to the street railway as to any other form of investor to get that money as constantly and as cheaply as possible? It is really vital; is it not?

Mr. JENKS. Other things equal, I grant that.

Commissioner BEALL. The minute you look into the term of your franchise, are you not putting a great big handicap on the company?

Mr. JENKS. Not if the other things are carried on as your question implies.

Commissioner BEALL. Have you ever tried to raise money for a street railway?

Mr. JENKS. No.

Commissioner BEALL. Have you ever tried to raise any money for any other kind of an industry?

Mr. JENKS. No, sir; that is not my business. I have been rather familiar with a great many of these things, but what you say is true.

The CHAIRMAN. We will resume at 2 o'clock.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

The hearing was resumed at 2 o'clock p. m.

Mr. WARREN. I would like to introduce some documentary testimony here.

Mr. Chairman, you asked Mr. Clark when he was on the stand for certain information about increases of fares.

The CHAIRMAN. Yes, sir.

Mr. WARREN. And I have a summary of those figures here.

The increased rates of fare granted, as was found in the June, 1919, Aera, page 1078, have been as follows: By commissions, 133; by cities, 52; operation of service at cost, 9. Those increases include increases of all kinds, whether a charge for a transfer or in any other way. The number of cities with increased fares was 388, as appears from the May, 1919, Aera, at page 973. The number of companies to which increases have been granted in rates of fare are 260.

The CHAIRMAN. Does that statement, Mr. Warren, show the number of applications that were made for increased fares during the same period?

Mr. WARREN. This summary does not, Mr. Chairman. The article shows applications pending before commissions, 36; before courts, 3; and before city authorities, 27. It also shows applications refused, by commissions, 4; by local authorities, 18.

The CHAIRMAN. Is not that quite a remarkable statement?

Mr. WARREN. I think it is.

The CHAIRMAN. It shows that they have been pretty generally granted increases.

Mr. WARREN. Yes; I think the only criticism that could be made would be as to the length of time.

Commissioner GADSDEN. There are only about 300 companies involved out of the whole industry. Lots of them did not apply because they knew they could not get anything.

Mr. WARREN. That may be so.

Commissioner GADSDEN. Yes; but as far as the industry is concerned, it does not show that.

Mr. WARREN. It appeared in a special report of the commission investigating this general subject in Massachusetts, which reported a year ago last January, as I recall the statement, that the average time before the Massachusetts commission had been four months. Under normal conditions I do not think that could be criticized, but under the war conditions four months is a long time. The wages on the Boston Elevated, as I have just been reading in this morning's paper, have been raised 25 per cent since the 1st of August, and they have been rate increases retroactive to the 1st of May; so that the 25 per cent for May, June, and July, three months, must be

paid, although during those three months the rate of fare, most of it, was at the old rate.

Do you care to have these magazines filed with the commission, showing those increases in detail?

The CHAIRMAN. Well, you might as well file one, if you will.

Mr. WARREN. It is in two parts, some in one and some in the other.

Commissioner GADSDEN. Why not just tear the page out and put it in evidence, instead of the whole magazine?

The CHAIRMAN. That can be done, Mr. Warren.

Mr. WARREN. Yes.

I have here also copies of replies made to an inquiry by the Secretary of Labor as to the permanence of the range of prices for necessities of life. They are statements of Julius Rosenwald, John D. Ryan, Darwin P. Kingsley, W. L. Douglas, A. Barton Hepburn, J. Ogden Armour, James B. Forgan, of the First National Bank of Chicago, and Jacob H. Schiff. Those I should like to have inserted in the record, if I may.

The CHAIRMAN. That may be done.

The statements referred to by Mr. Warren are as follows:

STATEMENT BY JULIUS ROSENWALD.

It is my belief that the range of prices for the necessities of life will average little, if any, lower than at the present time. Of course, there will be some exceptions, but I do not look for a sudden or violent reduction in the near future aside from those which have been artificially stimulated.

There exists a tremendous demand in our own country for all kinds of commodities. This demand will not diminish materially until war-wrecked Europe firmly reestablishes herself on a peace-time-production basis. I fully agree with those who believe that the reconstruction is going to tax our efforts perhaps even harder than did the war, and that there is cause for rejoicing in these conditions even though accompanied by high prices, for, after all, it is not a question so much of the price one has to pay, but as to what relation this price bears to one's own income.

STATEMENT BY JOHN D. RYAN.

I am rather a firm believer in the natural economic laws and I do not find myself in accord with the impression that many people seem to have that the level of prices is not likely to be radically changed over the decade. I believe that prices must be made that will equalize consumption and production.

We have seen some sharp adjustments already from war prices, and in every product in which the companies with which I am connected are interested prices have gone back to prewar averages, and in some cases lower. These products are copper, zinc, lead, and manganese.

I do not believe that the level of prices will fall permanently as low as before the war, but I am convinced that we can now look for gradual adjustments in most staple products. I think prices will have to be put where building and development of all kinds must be encouraged before we will see consumption approach production of the staples.

I think in the adjustments which are necessary labor will have to contribute its share or unemployment on a very serious scale is bound to result. I hope, however, that the intelligence and foresight of those who have to settle these questions will be such that every consideration of the needs of those who work for wages and salaries will be considered before profits, and that reductions in wages will take place only where it is imperative.

STATEMENT BY DARWIN P. KINGSLEY.

We have undoubtedly reached a new price level. For some years food will be higher. Europe has been so stripped of every sort of food that it will take more than the harvests of 1919 to restore an equilibrium.

Food will remain high because wages will not go back to the prewar level. Wages will fall at some points where production was overforced during the war; but unless our whole industrial and financial fabric falls into chaos—and nothing like that seems possible now—the postbellum readjustments mean continued high wages and, of course, a higher cost for everything into which wages enter.

How far discoveries in science, inventions, improved methods, etc., may go toward overcoming this increased cost through increased efficiency and increased production is a question. These will be a factor, possibly a surprising factor, because the rewards will be large, and few things so quicken invention and efficiency as the incentive of large returns.

Carry the message to the Bolsheviks.

STATEMENT BY W. L. DOUGLAS.

If you will call it to mind, the per capita in the United States in 1914, in round numbers, was about \$34. Recently I have noticed that the per capita is about \$57, which is an increase of a little over 57 per cent. While the per capita remains at this high level the cost of commodities and labor will remain about the same. I am of the opinion that prices will be governed to a great extent as the per capita rises or falls.

STATEMENT BY A. BARTON HEPBURN.

Seventy-five to eighty per cent of the cost of all products represents labor; and as long as the minimum price of wheat is fixed by the Government at \$2.25 a bushel and other necessities of the wage earner are approximately as high in proportion, there is every reason why labor should contend against reduction. With a recession in the cost of living there should be a corresponding reduction in the cost of labor. The employers of labor can not go on paying present wages nor, indeed, any wages, unless their business continues, and it has seemed to me that the closing of certain industries would throw labor out of employment. In seeking new employment they would accept the reduction in accordance with what industry could afford to pay.

I understand that this is what you are contending against; and you seek to induce manufacturers, wholesalers, retailers, and consumers to accept the present prices for goods and commodities and continue business, thereby assuring the employment of labor at the present level of wages. You very likely will be successful as to the large industries, but I think there will be more or less readjustment of the wage scale on a lower level in the smaller industries and in various localities.

STATEMENT BY J. OGDEN ARMOUR.

The greatest danger to our economic structure to-day arises from the failure of many to recognize a new and higher level of prices, based on permanently increased cost of labor and higher taxation.

Those who postpone building or buying in the hope of materially lower prices, are speculating in the future misfortune of the Nation. For falling prices, when reaching the point where profit is eliminated, mean panic, depression, unemployment, and other troubles.

In the final analysis, 75 per cent or more of the cost of most commodities consists of labor, and reductions in the market price of commodities are, therefore, inevitably reflected in the compensation of labor.

Nothing in the labor situation warrants anyone in expecting materially lower cost of commodities in general, and building in particular. Wages will not be less for several fundamental reasons; viz:

1. The practical stoppage of immigration since 1914, depriving America of the several million workers who would normally have come to our shores.
2. The retention by the Nation's military and naval establishments of nearly 2,000,000 workers, which may continue for an indefinite period.
3. The creation of new industries, such as shipbuilding and manufacture of chemicals and dyes, requiring hundreds of thousands of workers.
4. The urgent demand for building and construction of every class due to their having been forcibly held back for several years.

5. The shortage of the world's supply.

6. The proportionately higher levels of commodity prices existing practically all over Europe.

On the one hand then, we are facing a serious shortage of labor as soon as we approach normal industry activity, and on the other hand there is confronting us a tremendous, unsatisfied demand for many necessities which it was difficult or impossible to obtain during the war.

Normally, under such conditions we could have expected a flood of low-priced goods from the Old World, while now we find that prices in Europe have risen proportionately much higher than in America, and the demand for commodities and labor, to make up for the wastage of war, is even more keenly felt there than here.

The manufacturer who now quotes the lowest possible price consistent with the high cost of labor and guarantees this to be so, doing his buying freely on the same basis, ranks as our highest type of patriotic citizen. A new level of prices has been established from which there can be no material recession until inventive genius succeeds in correspondingly increasing labor's productive capacity by mechanical means.

STATEMENT BY JAMES B. FORGAN, FIRST NATIONAL BANK, CHICAGO.

While it is my belief that the general trend of prices during the next decade may be downward, I do not anticipate any sudden or violent tumble in the near future beyond the elimination of war prices made necessary to stimulate production in high-cost plants. We can not eat our cake and have it. We can not immediately have low-priced products with high-cost labor.

At no time was honest labor more indispensable than during the war, and during that period the average weekly wage of all workers was greatly increased.

Out of the war has come a strong realization of the value of labor to civilization, and we must accustom ourselves to the evident fact that a permanently higher scale of wages or compensation has been established for the world's worker, both skilled and unskilled.

In all lines of industry, to make a fair profit, selling prices must be in proportion to the cost of production, including the enhanced cost of labor. This fact should be recognized in buying as well as selling.

There exists in the world to-day, and there will exist for some time to come, a tremendous latent demand for goods and service and a relative shortage of workers caused by the war. The high cost of living has not yet begun to recede, and it would be an erroneous policy at present to cut prices at the expense of labor.

STATEMENT BY JACOB H. SCHIFF.

In the period from May, 1918, to October, 1918, commodity prices in the United States had advanced about 107 per cent above the 1917 level; in Canada 115 per cent; in Great Britain 133 per cent, and in France 235 per cent. From October, 1918, until March this year, in spite of the most violent cry for lower prices, even by those who are undoubted beneficiaries of high prices, the decline, according to Dun's figures, averaged only 6.9 per cent. During April, in spite of the agreement to lower steel prices, other commodities rose to such an extent that the average price on April 1 was only 5.7 per cent below the high point for October 1 last year.

The reason for this tenacious grip which high prices apparently have taken on the world is obviously to be found in the immutable law of supply and demand. The cost of labor is the most important factor in the price of commodities, as it makes up 75 per cent or more of their price. It starts with the cost of food and raw materials, which is largely represented by labor, goes on to the manufacture of semifinished and finished products, which again is labor heaped upon labor, and is frequently punctuated between or after these various stages or processes with transportation and distribution, which, when analyzed, turn out to consist of a high percentage of labor in its broadest sense.

The wastage of war, both in men and materials, again is largely responsible for shortage of labor, especially past and prospective. For four years the orderly production and maintenance of peace-time activity has been most

violently interrupted throughout the civilized world, causing on the one hand a heavy depreciation of property and on the other hand an appalling destruction of all those things which are vital to human happiness, life and activity. The reconstruction is going to tax our efforts perhaps even harder than did the war, the latent demand for labor and commodities being tremendous.

There is cause for rejoicing in these conditions, for intense activity, even though accompanied by high prices, is far to be preferred to the blight of inactivity, stagnation, idleness, and suffering attendant upon unsound, unbalanced production and rapidly falling prices. After all, it is not a question so much of what price each of us has to pay for what we want but as to what relation this price bears to our own income. These millions of men whose incomes have grown apace with, or ahead of, the general price advance have abundant cause for satisfaction. Yet how often do we hear these same people unwittingly complain of high prices, their attitude being that high prices is a privilege that belongs to themselves only, in the selling of their own labor or wares, but has no place in their scheme of buying.

Mr. WARREN. Then, earlier in the session——

The CHAIRMAN. Just a moment. Can you state for the record what the substance of those replies is?

Mr. WARREN. I think the substance of it is that the price level is going to be maintained for a long time.

The CHAIRMAN. That is all I wish to ask on that.

Mr. WARREN. Then we referred in some of the earlier testimony to the history of prices during the war, international price comparisons issued by the Department of Commerce. I would like to file that as a memorandum. It might assist the commissioners.

I should also like to file the Review of Economic Statistics for June, 1919, monthly supplement, the post-war level of commodity prices, which is issued by the Harvard University Committee on Economic Research, at Cambridge, Mass.

The CHAIRMAN. Would it be convenient for you to get a sufficient number of copies so that each and every commissioner could have one of them?

Mr. WARREN. I will endeavor to do that, Mr. Chairman.

The CHAIRMAN. Thank you.

Mr. WARREN. There are many things we have promised, and which I want to file, but which I should like to have an opportunity to look at the record for; because while we have kept a memorandum, I am afraid it is not complete, and I want to run through the stenographic record, when finished, to see what we should furnish that we have not furnished.

The CHAIRMAN. Yes.

Mr. WARREN. The commission has asked for data as to the power generated and purchased by the electric railways of the United States, with the cost of each, for the census year. They are referred to in Table 104, 1912, and Table 104 of Advance Statistics, 1917 census, and that I will file.

The information thus referred to by Mr. Warren is as follows:

Power generated and purchased by electric railways of United States with the cost of each for the census years.

(Table 104, 1912, and Table 104, Advance Statistics, 1917 Census.)

	Kilowatt hours.	Per cent of total.	Cost.	Per cent of total.
1917.				
Power generated.....	7,240,502,789	59.4	\$54,494,814	59.1
Power purchased.....	4,947,348,042	40.6	37,757,963	50.9
Total.....	12,187,850,831	100.0	92,352,777	100.0
1912.				
Power generated.....	6,052,699,008	67.1	35,788,270	59.2
Power purchased.....	2,907,318,781	32.9	24,696,647	40.8
Total.....	9,020,017,783	100.0	60,484,917	100.0
1907.				
Power generated.....	4,759,130,100		31,235,005	71.1
Power purchased.....	(¹)		12,342,258	28.9
Total.....			43,577,268	100.0
1902.				
Power generated.....	2,261,483,397		19,190,810	83.2
Power purchased.....	(¹)		3,871,518	16.8
Total.....			23,062,328	100.0

¹ Not available.

Mr. WARREN. The commission also asked that the ratio of tax to net capitalization for the census years 1902 to 1912, which is made up from Table 5, 1912 census, and Table 5, Advance Photostats, 1917 census, and that I will file. The ratio appears to have 0.935 per cent in 1917, as against 0.826 per cent in 1912.

The information thus referred to by Mr. Warren is as follows:

Ratio of taxes to net capitalization for the census years 1902-1912.

(Table 5, 1912 census, and Table 5, Advance Photostats, 1917 census.)

	1917	1912	1907	1902
Net capitalization.....	\$4,893,962,096	\$4,243,317,727	\$3,400,107,839	\$2,155,768,102
Taxes.....	45,756,695	35,027,665	19,955,602	13,078,839
Ratio taxes to net capitalization (per cent).....	0.935	0.826	0.58	0.607

Mr. WARREN. Our statistician was asked, when on the stand—as to the segregation of electric-railway companies relating to power statistics—where the companies were combined companies, as reported in the Special Electric Railway Census; and I am advised as follows by him:

In answer to questions of Commissioner Wehle regarding the extent to which the United States census reports segregate power statistics as between strictly electric-railway properties and those doing a combined electric-railway, lighting and power business, it has been found that complete separation has been made by the United States Census Department.

This is included in the 1912 census report under the discussion of power-plant statistics.

We are advised by the Census Department that the same segregation has been made in the 1917 census, and where possible, an even greater refinement has been made in the attempt to segregate as completely as possible electric-railway properties from those doing a combined power and lighting business. As a result, the amount of power and lighting business included in the electric-railway statistics is insignificant. This applies to all statistics, including the number of employees and the capacity of equipment in use.

One of the witnesses was also asked as to double-decked cars; and we have the following replies:

The first one is by Mr. Tome, receiver of the Pittsburgh Railways Co., dated July 23:

Mr. E. B. BURRITT,

Secretary American Electric Railway Association.

Washington, D. C.

(Re double-deck cars used by Pittsburgh Railways Co., Pittsburgh, Pa.)

DEAR Mr. BURRITT. The operation of double-deck cars in Pittsburgh has been in effect since the summer of 1912, at which time a double-deck car constructed in the company's shop was put in service. This operation proved sufficiently successful to warrant the purchase of five additional cars from the car builder. So, therefore, for the last five or six years we have been operating a total of six cars of this type in regular passenger service from the center of the city to the residential districts. These cars were designed primarily to meet a demand from the public and in response to a campaign of certain complainants for a greater proportion of seats per passenger during the rush hour.

These cars are the center-entrance type with double doors and two stairways at the center, thus facilitating the collection of fares.

The seating capacity of the cars is 112 persons, and they take the place in the schedule of a regular motor car and trailer, having a combined seating capacity of 120. In other words, the double-deck car is used in the same service with two-car trains. They have not noticeably slowed up the schedule, although there is no doubt that some additional time is required for loading these cars as compared with the other cars on the system.

Of course, these cars are not so well suited for midday service, since the larger capacity is not needed except in the rush hour, and this involves some additional weight and wear and tear during the nonrush-hour periods. As a matter of fact, however, these cars have been so closely designed that they do not weigh more than the standard double-truck end-entrance cars largely used on the system. It is only in comparison with the modern center entrance, low-floor cars, now adopted as standard on the system, embodying the same principles as these double-deck cars, that a saving in weight may be secured.

Owing to narrow streets, sharp curves and clearance in passing overhead structures, the interior design and dimensions of these cars were necessarily limited, resulting in some loss of comfort and convenience to the passengers.

In view of the above considerations, we do not believe that we would care to extend the use of this type of car, as its economies are somewhat doubtful in view of the limitations in schedule speed, the carrying of extra weight in the nonrush-hour periods, and the limited dimensions of the car.

Yours very truly,

(Signed) S. L. TOME,

Receiver, Pittsburgh Railways Co.

A telegram from Mr. A. M. Robertson, vice president of the Twin Cities Rapid Transit Co., Minneapolis, Minn.:

MINNEAPOLIS, MINN., July 22, 1919.

HERBERT WARREN,

950 Munsey Building, Washington, D. C.:

Telegram received. Experience of Twin City Co. with double-deck cars was not of sufficient duration to go to the real merits of their operation. During pleasant weather all passengers wanted to ride on upper decks, during bad weather they wanted to ride below.

A. M. ROBERTSON.

Telegram from Horace Lowry, president of the Twin Cities Rapid Transit Co., Minneapolis, Minn.:

MINNEAPOLIS, MINN., July 23, 1919.

JOSEPH K. CHOATE,
*American Electric Railway Association,
950 Munsey Building, Washington, D. C.:*

Yesterday we wired Warren of Duluth Co. in regard to double-deck cars. Our experience not of much value as equipment was too heavy on account of attempt to build upper deck on standard cars. Upper deck was not closed in and was very unpopular in bad weather and over-crowded in good weather, making cars top-heavy. Do not believe our experience of any value in discussion. We only built three cars and only used them a short time.

HORACE LOWRY.

Telegram from Frank Hedley, vice president and general manager of the Interborough Rapid Transit Co. of New York, saying:

NEW YORK, N. Y., July 23, 1919.

JOSEPH K. CHOATE, Esq.,
*American Electric Railway Association,
950 Munsey Building, Washington, D. C.:*

Operation of double-deck car has been successful and popular here. Built before war, not practicable to build and operate such equipment at present prices of labor and material on 5-cent-fare basis.

FRANK HEDLEY.

I would like to file a letter from Mr. H. H. Westinghouse, of the Westinghouse Air Brake Co., on the cost of materials. Other material of that kind was filed, and I do not think I need to take your time to read it:

NEW YORK, N. Y., July 23, 1919.

COMMITTEE ON PRESENTATION,
American Electric Railway Association.

GENTLEMEN: The Westinghouse Traction Brake Co. specializes in furnishing material and expert service for the safe and effective braking control of electrically propelled vehicles. Its business forms a substantial proportion of the product of the parent company, Westinghouse Air Brake Co., the largest manufacturer of power brakes for steam locomotives and cars.

During the period of the war practically the entire output of the Westinghouse Air Brake Co. was on Government orders, and our raw material and labor costs, as well as personnel, were affected in almost exact ratio to the large steel mills and other industries in the vicinity of Pittsburgh, where our works are located. The increased cost and scarcity of material and labor has resulted in a continual rise in cost of production, and therefore in the price to our customers, the electric railways, as shown by an approximately increase in price of standard brake apparatus in 1919 over 1914 of 78 per cent. Notwithstanding this condition, the rate of profit has remained practically the same as in 1914, being in some cases somewhat less.

The art of brake manufacture has been so completely developed that there is little prospect of reduced costs due to improved methods; and as there seems to be no immediate reasons to expect a reduction in either wages or cost of material, it is believed that the present scale of prices can not be reduced within the near future. We, of course, hope that conditions will so change that we can readjust prices for the benefit of our customers, but circumstances over which we have no control must necessarily govern what may be done in that direction.

Truly, yours,

H. H. WESTINGHOUSE.

Mr. WARREN. A question was asked the other day about British conditions. The Electric Railway Journal has published numerous articles on the situation in Great Britain, in which it appears that there have been increases in wages, and that fares have been increased in many cases from 50 to 100 per cent.

There is also included in these articles a statement of increased cost in the city of Sheffield, and if I may file those—not to be copied into the record, but as possible useful information for the commission—I would like to do so.

I should also like to have go into the record, if I may, without taking the time to read it, a letter from Congressman W. B. McKinley, who is president of the Illinois Traction system, on the street-railway situation. I should like to have that copied into the record.

The letter thus referred to by Mr. Warren is as follows:

CHAMPAIGN, ILL., July 23, 1919.

DEAR SIR: I inclose herewith sundry data in connection with the electric railways and collected from our experience in operation.

Yours, very truly,

W. B. MCKINLEY, *President.*

FEDERAL ELECTRIC RAILWAYS COMMISSION,
Interstate Commerce Building, Washington, D. C.

There are so many dependent considerations to be considered in a discussion of the financial crisis in which the street-railway systems find themselves that it can not be covered in any short discussion. The following subdivisions will furnish a basis of suggestion, from which may be selected the particular branch of the subject which one may wish to present.

STREET RAILWAY DATA—DEVELOPMENT AND EVOLUTION.

Facilities: (a) Cars, (b) track and roadway, (c) wages, (d) power houses, (e) competition, (f) saturation or service.

(a) *Cars.*—If we begin in the year 1895 and take steps in five-year periods down to the year 1919, we find that there has been a complete evolution and change in the type, construction, electrical equipment, size, and appliances in use in street-railway-transportation systems.

About 1895 the electric street railway became a reality, although the earliest experiences and development in that utility preceded that date by probably five years.

The first cars were constructed with open vestibules, without any protection for the trainmen, with the most simple operating devices; hand brakes, single motors, light weight and cheap construction. They were single-truck cars without any improved fare-collecting or registering devices, with the most simple electrical equipment and heated by stoves.

The present electric street-car is usually of the double-truck type, multiple motors, large seating capacity, vestibules completely inclosed and electrically heated.

The electric equipment on the present type of car costs more than the entire car complete cost originally.

From a car costing probably \$3,500 fully equipped, we now pay \$5,000 to \$10,000 for a single car.

(b) *Track and roadway.*—The original electric street railway was usually run on 30-pound steel rails; over light special work; little, if any ballast; no pavement, light bonding, without crossing signals or devices, and without any modern safety appliances.

To-day the track is laid of 90-pound steel rails, sometimes 125 pounds (heavier than in use on the steam railroads), rails of special type; the special work of the heaviest construction obtainable; track usually laid on concrete base, and pavements of expensive and permanent character. Where street is unsafe, the track is heavily ballasted. The cost of installing and maintaining crossing signals and devices is a material element; the rail joints are frequently welded and connected with heavy and expensive bond.

A comparison of the installation of the track and roadway of the year 1900 with the present time shows from 100 per cent to 200 per cent increase in the cost of this part of the property.

Likewise in similar ratio the maintenance costs have increased.

(c) *Wages.*—From a 15 or 20 cents per hour wage to platform men, the street railways are paying from 36 to 70 cents per hour, and demands are being seriously urged for additional increase.

The wages of all the trackmen has increased from approximately \$1.35 per day of 12 hours to approximately \$4 per day for 8 hours.

Shop labor and power-house labor has increased in like proportion. Linemen are receiving \$1 per hour.

(d) *Power houses.*—The development of the generating plants of the electric street railways has undergone a complete evolution within the last decade. From small 100 kilowatt belt, or direct-connected units, we have advanced to noncondensing steam turbines of from 500 to 10,000 kilowatt capacity.

(e) *Competition.*—In the face of these advancements, street railways to-day compete with gas-engine vehicles in the form of jitneys or taxicabs, to say nothing of the privately owned automobile which carries a large per cent of the population which used to use the tram cars.

(f) *Saturation and service.*—The street-railway systems 10 years ago averaged a population of 1,000 per mile of track in the cities served; with the doubling and redoubling of population, to-day the electric-railway mileage is on a ratio of probably 2,500 people per mile of track, in smaller communities with much larger ratio of population than in the larger cities.

Originally the electric car carried the passenger on comparatively short hauls for a 5-cent fare; while to-day the electric-railway utility is expected to carry passengers as far as 20 miles for the same nickel.

A bare suggestion of the above historical facts is enough to prove the impossibility of the future development or success of the electric street railway on the old basis of a 5-cent fare.

Probably one of the fundamental errors in the evolution of street-railway business has been the effort to extend the length of haul without any reference to a zoning system and without any proportionate or compensatory increase in fare.

There can be no justification for charging one passenger 5 cents for a ride of two or three blocks and another passenger on the same car only 5 cents for traveling a distance of 10 miles.

There can be no defense of the regulating practices which are being applied to the street-railway business by the commissions and regulating bodies at the present time.

The single aim of the regulating bodies seems to have been directed to an effort to justify a continuance of the 5-cent fare in the face of the conditions of evolution and development of the service.

One of the false methods by which it has been attempted to justify the nickel fare under impossible conditions is for the regulating body to ascertain an estimated original cost of the physical property remaining in the service of a particular utility, entirely ignoring the property that had been retired without having served its useful life and without any effort to reward the utility for losses from functional depreciation in the units replaced with improved types and structures.

Thus by this process of unfair appraisals, the regulating tribunals have confiscated millions of dollars of invested capital, wholly without any effort to compensate for the loss or recognition of the destruction of the industry.

There has also apparently been no effort to harmonize or reconcile the various classes of patronage which support the street-railway service.

The man who rides on the car once a month and to whom it is nothing but a luxury and who does the loudest complaining at any discomfort in the service pays the same fare as the laboring man who rides on the same car four times a day and who really supports the service.

If a service is maintained to accommodate the transient rider he would probably have to be charged from 50 cents to a dollar per trip; while the maintenance of a service to accommodate a daily user could probably afford it at 5 cents per ride.

There is also apparently no recognition of the necessity for a tremendous investment to meet peak-load business during the rush hours of the day or upon the occasion of unusual gatherings such as county fairs, circuses and the like; and the street railway is expected and required to maintain sufficient equipment to conveniently handle tremendous crowds for probably three or four days in the year, and 50 per cent of this equipment lies idle the rest of the time with no thought of the interest upon the investment necessary to provide the same.

During the rush hours the passenger complains of the crowded condition of the cars, and the public is entirely forgetful of the remaining four-fifths of the day when the cars are rattling over the system without passengers and at an actual operating loss to the company.

SUGGESTED REFORMATIONS.

1. There should be a zoning system put into practice on every street-railway system, by which the long-haul passenger pays for the additional service in some degree of proportion to the short-haul passenger who probably pays an excessive fare.

2. A basic 10-cent fare would be less in proportion to the present-day investment and operating and maintenance costs than was a 5-cent fare when the thing became generally operative.

3. With a basic 10-cent cash fare, provision should be made for the accommodation and recognition of the value of the daily patron by a sliding scale of reduced fares in proportion to the frequency of patronage by the individual or his family.

4. The street-railway company should be encouraged to inaugurate the practice of one-man car operation and to purchase specially designed and constructed equipment for that character of operation.

This, however, requires as a condition precedent that the retirement from service as obsolete of the present character of equipment should not operate to deprive the investor of the value of the remaining useful life of such equipment and the original investment therein, but the same should continue and be made a part of the fair value of his property upon which subsequent rates are predicated and return allowed.

Unless the regulating bodies do allow as a part of the appraisal of street-railway systems the property which the company elects to retire and treat as functionally obsolete, it will be financial suicide to attempt this improvement and economy when operating street railways.

5. If the patron of the street railway company is to be required to furnish the money to pay a compensation to the city for the use of the street by the street-railway system, it should be laid as a direct charge and not camouflaged by assessments for pavements for which there can be no present-day apology.

The theory of assessing a street-railway company for street paving may have been justified when the mules trod down the middle of the street and wore out the roadway, but it can not be justified with electrically operated cars, where the surface of the pavement is usually better than in the adjoining portion of the street upon which vehicles are supposed to preferably travel.

Under present conditions the patron of the street-car who supports the service pays for the construction and maintenance of a pavement in the streets for the use of the automobile driver, who does not patronize the street-car but who uses the facility provided by the revenues furnished by the street-car passenger.

The CHAIRMAN. Mr. Warren, will you kindly indicate to the reporter the documents filed that you desire to have made a part of the transcript of the record?

Mr. WARREN. I will do that afterwards; yes, sir.

The following statement was also submitted by Mr. Warren:

Electric railways—Balance sheet, operating and lessor companies, 1917.

Number of companies.....	1, 307
Profit and loss surplus.....	732
Profit and loss deficit.....	394
Balanced statements (neither surplus nor deficit).....	181
Total assets or liabilities.....	\$6, 272, 617, 041
Assets:	
Road and equipment.....	5, 136, 441, 599
Other physical property.....	79, 608, 323
Stocks and bonds of other electric railway companies.....	312, 606, 036
Stocks and bonds of companies other than electric railways.....	63, 395, 213
Treasury securities.....	77, 883, 055
Stock.....	17, 254, 917
Bonds.....	60, 628, 138
Other permanent investments.....	108, 769, 096
Materials and supplies.....	59, 168, 287
Cash and notes and accounts receivable.....	140, 191, 981
Stock and bond discount.....	101, 483, 071
Sinking and other special funds.....	71, 454, 040

Assets—Continued.	
Interest, dividends, and rents receivable	\$3, 208, 174
Sundries	39, 647, 487
Profit and loss, deficit	78, 740, 680
Liabilities:	
Capital stock	2, 473, 846, 651
Common	2, 012, 189, 294
Preferred	461, 657, 357
Funded debt	3, 051, 179, 272
Real estate mortgages	7, 197, 895
Floating debt (loans and notes)	166, 592, 228
Reserves	75, 744, 518
Accounts payable	87, 947, 134
Interests, rents, and taxes due and accrued; dividends due	102, 999, 996
Premium on capital stock and funded debt	12, 224, 698
Accrued depreciation	73,933, 756
Sundries	61, 138, 184
Profit and loss, surplus	156, 812, 709
Net surplus	78, 072, 029

Condensed income accounts, year 1917.

Operating companies:	
Income from all sources	\$730, 108, 040
Operating revenues—	
Railway operations	650, 149, 806
Auxiliary operations	59, 675, 286
Total operating revenues	709, 825, 092
Operating expenses	452, 594, 654
Net operating revenue	257, 230, 438
Taxes	45, 756, 695
Operating income	211, 473, 743
Nonoperating income	20, 282, 948
Gross income	231, 756, 691
Deductions from gross income:	
Rent for leased roads (lines and terminals)	48, 302, 823
Interest on funded and unfunded debt	119, 113, 018
All other	7, 889, 920
Total deductions	175, 305, 761
Net income	56, 450, 930
Dividends	48, 337, 435
Surplus	8, 113, 495

Operating expenses by detailed account, United States, 1917.

Number of companies	943
Operating expenses	\$452, 594, 654
Railway	421, 250, 838
Auxiliary	31, 343, 816
Way and structure	55, 754, 859
Superintendence of way and structures	3, 110, 073
Maintenance of way	35, 717, 257
Maintenance of electric lines	6, 623, 513
Buildings, fixtures, and grounds	2, 912, 025
Depreciation of way and structures	6, 800, 348

Way and structure—Continued.

Other operations.....	8,591,648
Other operations, credit.....	254,440
Railway operations, net total.....	55,470,419
Equipment.....	49,485,880
Superintendence of equipment.....	2,039,273
Maintenance of equipment.....	35,916,695
Miscellaneous equipment expenses.....	4,249,902
Depreciation of and retired equipment.....	6,836,836
Other operations.....	443,057
Other operations, credit.....	504,326
Railway operations, net total.....	48,981,554
Power.....	92,352,777
Superintendence of power.....	934,311
Power-plant buildings, fixtures, and grounds.....	408,321
Maintenance of power equipment.....	4,128,485
Depreciation of power plant, buildings, and equipment.....	2,276,295
Power-plant employees.....	6,659,758
Fuel for power.....	30,167,325
Water for power.....	504,132
Other power supplies and expenses.....	1,475,300
Substation employees.....	2,634,567
Power purchased and exchanged, credit.....	4,259,812
Other operations, credit.....	11,134,504
Railway operations, net total.....	76,958,461
Conducting transportation.....	174,972,645
Superintendence of transportation.....	9,839,230
Conductors, motormen, and trainmen.....	131,052,689
Miscellaneous transportation expenses.....	34,080,726
Traffic expenses.....	2,301,817
General and miscellaneous.....	64,185,308
Salaries and expenses of general officers.....	7,018,752
General expenses.....	22,794,005
Injuries and damages.....	23,743,431
Insurance.....	3,101,407
Rent of tracks, facilities, and equipment.....	7,152,823
Other operations.....	379,890
Other operations, credit.....	1,447,043
Railway operations, net total.....	62,738,255
Transportation for investment.....	172,323

MR. WARREN. Prof. Jenks, will you resume the stand?

STATEMENT OF MR. JEREMIAH W. JENKS—Continued.

MR. JENKS. You had been asking me some questions, Mr. Commissioner.

Commissioner BEALL. Yes, sir; I had finished with those.

MR. JENKS. Some questions have been asked with reference to the effect of the short-term franchise on the securities. I had spoken of the desirability of the short-term franchise, 25 or 30 years perhaps, the reason for the term submitted being that there are very many changing conditions that can not be expected.

I recall to my mind, for example, a specific instance that I remember being told me in Washington here some years ago, when I was engaged in a Government investigation. It was the case of a gas company. One of the directors told me that the chief problem before them for some little time had been to find ways to cover up their profits, so that they would not get in difficulties with the taxing authorities.

MR. WARREN. That was not a street-railway company.

Mr. JENKS. That was not a street-railway company; no. The principle, as to the franchises, of course, may be the same in general.

He said that it had to seek new ways to get securities out, so as to not have their profits appear so high that the public would not stand for it.

That, of course, was an exceptional case, and under present conditions I am quite prepared to believe it would not apply to any one of the electric railways.

Notwithstanding, we do know perfectly well that in the early days street-car franchises in many cities that were rapidly growing were given on such terms that within a few years they did become unjust to the public.

Now, as regards this question of securities, I am quite in sympathy with the suggestion that was made that they had to be taken care of. I believe, as I said to begin with, that business is as much a care of the public—property, I mean, is as much a care of the public—as anything else. We are all one. It is the difference in the point of view; but I should think there might be different ways of meeting that objection. If we are going to have any specific term, 50 years, 75 years, the same difficulty is likely to arise.

Mr. WARREN. The idea of the indeterminate franchise is to have no definite term.

Mr. JENKS. Yes; that is understood.

Mr. WARREN. It simply continues until the city chooses to buy on an agreed price, based on the actual value of the property.

Mr. JENKS. Yes; I understood that was the case.

Mr. WARREN. And in Cleveland it goes a step further than that, and provides that the city can arrange for the sale to some other company, and the city does not necessarily have to buy it itself.

Mr. JENKS. In a great many cases at the present time in the sales of bonds of public-service corporations—and I think it should be generally the custom, when the bonds are issued—rigid provisions are made for either a sinking fund or issues of term bonds that will take care of themselves as they go on. My own feeling is that they should be included in the cost-of-service idea and be taken care of in the permanent obligations of that kind, as I think there should be taken care of a proper depreciation and maintenance of the road and things of that kind. I see no reason why that is not one of the regular proper charges to take care of in that way, and that would include amortization.

Commissioner BEALL. That is all right, if they will allow you to earn enough to do it; but they do not.

Mr. JENKS. Well, there again, that will come in under the principle that I have laid down at the beginning—that if we are going to have that, the rate should be fixed high enough so that there would be no question about taking care of the proper legitimate charges. I am quite in sympathy with that, that they should take care of the securities.

Commissioner BEALL. So an essential feature of the term franchise, in your judgment, would be to take care of, in some way, any bond issues that would have to be made?

Mr. JENKS. Yes, of course. Personally I would not like to be understood as opposing an indeterminate franchise along the line you are suggesting, but I would like to have that developed in such

a way as to adapt itself to the changing conditions, and of course we should take care of what I think is a perfectly legitimate charge, such as depreciation is.

Commissioner BEALL. Yes.

Mr. JENKS. May I add just one or two words more, and then I have nothing further to say, as far as I myself am concerned.

We have spoken of the control by State commissions and of the control by the city governments themselves. It seems that it is a little difficult to lay down any hard and fast rule. As I intimated to begin with, the conditions in different cities vary so that each case should be considered by itself. In the case of many large cities, for example, if you do not have the city itself exerting a considerable measure of control and discretion, they are likely to lose the interest in it that they have. Of course, I recognize the dangers. Generally speaking, the tendency has been to give the State commission more control, and that is doubtless right.

It would be very advantageous, it would seem to me, if the commission, in the very beginning, would seek remedies for this difficulty, aside from the question of raising fares. I am not in a position to recommend definitely very many, but I recall, for example, that in New York City at the time of the most congested period, which was one of the greatest difficulties there, arrangements were made by which—and I can see no reason why it should not be applied here—various business houses might change their opening and closing hours in such a way as to prevent the very great overcrowding.

That might be done by a sort of an agreement, if you like, or by the city authorities; and in that way you can escape the peak load to a considerable extent, and thereby get relief from that difficulty. Of course, the trouble with the electric roads is that very largely their cars are often run only half full, and at other times they can not possibly take care of the traffic, and if you could spread this over more time it would be helpful.

Then it has been suggested, I believe here, that a very customary plan is to compel the electric lines to pave between the tracks, and that they might possibly be relieved from such taxation in an emergency, although the latter, it seems to me, ought to be avoided if possible. I do not want to make exceptions along those lines if it can be avoided. Those things, I should think, in a good many cases might be worked out, but I am not competent to state how.

That is all I have to say, Mr. Chairman, unless you wish me to answer some questions.

The CHAIRMAN. We are much obliged to you.

Mr. WARREN. I want to introduce Prof. Conway in reference to the increases of fare, and particularly in reference to the zone system.

STATEMENT OF MR. THOMAS CONWAY, JR.

Mr. WARREN. Will you give your full name?

Mr. CONWAY. Thomas Conway, jr.

Mr. WARREN. Where are you located?

Mr. CONWAY. I hold the chair of finance of the University of Pennsylvania.

Mr. WARREN. And have you given a good deal of study to the street-railway situation?

Mr. CONWAY. I have; yes, sir.

Mr. WARREN. And a good deal to the question of increased fares and different methods of accomplishing it?

Mr. CONWAY. That is correct.

I might say—and I think perhaps it would help the commission, to know how far my study of this question has gone, in order that they may tell to what extent my views are worth while—

Mr. WARREN. Yes; I will be glad to have you do that.

Mr. CONWAY. If I should just go into that a little?

Mr. WARREN. Yes.

Mr. CONWAY. For a great many years—that is, for over 10 years—I have studied the public-utility question, first as a university teacher, and later from a more intimate connection, in the examining and reporting upon public-utility properties for investment bankers. Included in that, of course, were street-railway properties.

When the European war broke out and the price situation had begun to be acute, I was requested by some of these firms to study the matter of protecting the securities which, in past years, had been sold to investors. In that way I became intimately interested in the matter of endeavoring to reestablish a sound economic basis for these enterprises.

The electric railways of the State of New York, through their association—the New York State Electric Railway Association—I believe, were the pioneers in calling the attention of the public and the commissions to the problem; and through a special committee which was created in 1916, of which Mr. Choate was chairman, general testimony in form very similar to that which has been presented here, was laid before the New York Commission, especially the up-State commission, so called. Mr. Carr at that time was a member of the commission.

I testified in that proceeding and assisted the committee in bringing out the facts as they then existed, largely from the records of the commission itself and the reports of the companies to the commission.

Subsequent to that time I have given a great deal of attention to the matter of endeavoring to work out an equitable solution of the problem of readjusting rates to bring about the necessary readjustment of revenues, and in connection with that matter have made careful studies of the possibility of rate readjustment on a number of properties. These properties, I think, present practically every condition which you would encounter, at least in the eastern part of the United States. I have in mind particularly certain properties in which these various phases are illustrated, such as the Wilkes-Barre Railway Co., which serves the territory in and around the city of Wilkes-Barre; the Lehigh Valley Transit Co., which serves a large part of the territory lying to the north of Philadelphia and including the eastern end of the Lehigh Valley.

Subsequent to that time, when these matters were investigated and I made a report upon questions of revisions of fares and rates, I was privileged to participate in two very interesting studies, one made at the direction of the New Jersey Utilities Commission, which ordered the Public Service Railway Co. to work out, if possible, a plan for

a zone system of fares. (I might say that the Public Service Railway Co. operates practically all of the electric-railway lines in the State of New Jersey, excepting those in the seashore resorts and in the city of Trenton. So that you had practically all of the conditions which you would encounter in a State, from the rural lines to the lines in thickly settled cities).

At about the same time the president and trustees, the latter appointed by the United States court, operating and controlling the Connecticut Co. property (which serves practically all of the State of Connecticut, including not only cities but the rural districts) requested me to make a study of the whole question of a readjustment of rates to meet the necessities of the situation.

Mr. WARREN. Just a moment, Professor. Those trustees have no personal interest in the Connecticut Co. at all, have they?

Mr. CONWAY. No. They were appointed by the Federal court to administer the property in connection with the dissolution of the so-called trust affected by the court when they divorced the trolley line from the control of the New York, New Haven & Hartford Railroad.

Mr. WARREN. They are merely trustees to dispose of the property?

Mr. CONWAY. Yes, sir; and administer it until such time as that can be accomplished.

Mr. WARREN. Yes.

Mr. CONWAY. Now, it was my good fortune to have in connection with those two matters every measure of cooperation and assistance which it was possible to secure. The studies were most elaborate, and without going into detail at this time regarding them, I think that, in connection with these questions, I was able to get a very clear picture of at least some of the difficulties in readjusting rates and some measure, perhaps, of the possibilities of the various methods of readjusting rates to secure additional revenues; because, as I say, you had practically every situation which existed in the two States, from the thinly settled rural lines, with hourly service, as in Connecticut, to cars operating on 20-second headway in the rush hours in the city of Newark.

Now, in addition to that, I have been requested to report on various other properties; in each case, the report along the lines of endeavoring to work out or point out an equitable method of increasing the revenues by the readjustment of fares to meet the increased operating expenses.

Mr. WARREN. Do you care to say anything about the rapidity of the increase of operating expenses?

Mr. CONWAY. Well, I have not been here regularly at these sessions—I got in last evening—but I assume that the commission is well aware of the general course of these increases in operating costs.

In the first place, in my mind, they divide themselves into certain periods. The real increase in operating cost began many years ago, and it went along gradually. The situation from a broad point of view, as I see it, was one in which increased costs were offset to a considerable extent in that first stage by various improvements in the art, which were effected by the managers of the properties; but I think, on the whole, speaking now of the prewar period, the managers of the properties were steadily but slowly losing ground. The investors in securities were very uncertain about the ability of the

manager to meet these increased costs, and, in consequence, the street-railway securities were in disfavor.

Now, when the war came, this gradual progress was suddenly changed into an acute crisis. In 1916 there was a large increase in operating costs, resulting at that time in most cases from an increase in the cost of materials, largely due, no doubt, to the demands of the Allies for supplies of all kinds. In these stages there was little or no increase in labor cost.

Then the labor phase of the situation became acute; and what I call the first crisis in the labor element was reached last summer, when the War Labor Board was called upon to readjust wages in order to offset the increased cost of living.

Now, as you doubtless know, the greater part of the expenses of an electric railway is labor. My recollection is that the census of 1912 shows that over 60 per cent of the total operating expense of electric railways were wages and salaries, and that only a little over 1 per cent represents the salaries of officers. A recent careful study of the cost of operation of the Public Service Railway Co. for the 12 months ending July 1 of this year showed that over 75 per cent of the operating expenses were labor, and since that time the War Labor Board has raised wages. I have not figured it out, but it must be practically 80 per cent now of the operating expenses of that company are labor.

The increased wages which the War Labor Board granted to the men, beginning last summer and extending through the fall and winter, brought a very serious problem; and, as I see it, the companies have not even yet been able to readjust their fares and their income to take up these increased expenses represented by the increased wages granted to the men last summer and fall and early winter.

Now we are about to enter, in my opinion, the third phase. It is here. It is on us. We are just coming into it, and that, from the standpoint of the companies, is the most serious of all, on the theory that it is the last straw that breaks the camel's back.

You know the wages of trainmen, and they carry with them collateral increases for other classes of employees, have recently been increased, by one method or another, and the process, as I see it, of a second general readjustment is here.

I call attention to the recent increase, in Detroit from 48 cents to 60 cents an hour, and in Cleveland 48 cents to 60 cents an hour.

There are pending before the National War Labor Board cases involving the Bay State Street Railway Co., or, as it is now called, the Eastern Massachusetts Street Railway Co., and the Pittsburgh Railways Co.

Mr. WARREN. You do not mention the Boston—

Mr. CONWAY. I was just getting to Boston.

Mr. WARREN. Oh, I beg your pardon.

Mr. CONWAY. The Boston case was pending before the War Labor Board, but the men were not willing to wait for that answer. The consequence was that it had to be settled by a quicker tribunal; and 62 cents, I think, was the amount granted to the men in order to re-establish service.

The Chicago situation is, at the moment, very acute. The men are asking 85 cents an hour, with an eight-hour day.

Mr. WARREN. I ought to state that I do not know which is correct. The telegraphic dispatches stated the rate in Boston at 62 cents, and the Boston paper which I received this morning, in giving an account of the celebration on the common when the result was announced, indicated that 60 cents was the rate for the surface men and 62 cents for the men on the subway and elevated cars. So, as I say, I do not know which is correct.

Mr. CONWAY. Probably that is correct.

Mr. WARREN. Yes. They usually have a slight differential.

Mr. CONWAY. Yes. Now, my information on the Chicago situation that I am about to relate now is all from the newspapers: but the clippings which I received, taken from the Chicago papers, just before I came to Washington yesterday, indicated that the company had offered the men operating on the surface cars 60 cents an hour and those operating on the elevated 62 cents an hour. The men had rejected the offer and had demanded 85 cents, their original demand.

Now, as I say, the War Labor Board advanced the wages of the trainmen of the Public Service Railways from 45 cents to 50 cents. These increases are far more important than would be indicated by the enumeration of the companies which are affected, because the War Labor Board had, practically speaking, standardized wage rates, dividing the companies into three groups. The first group embraced those properties in the large cities where the cost of living was highest. In the original awards they gave the men 48 cents an hour as the maximum in these cities. That 48-cent rate has gone to 60 cents an hour, an increase of at least 25 per cent.

The second group of companies established by the War Labor Board were what was known as the 45-cent group, the companies operating in the smaller cities, where the cost of living was less; and then there was a third group, representing properties operating in the thinly settled districts, where the cost of living was still less.

Now, with a well-organized unit of men, such as is the case in the street-railway business, the establishment by a number of companies of the 60-cent rate practically means—I am certain of this in my own mind—that all of the other companies, under like conditions, are going to have to follow suit, and the establishment of rates for such companies as are typical of the old 45-cent group, such as the Public Service Railway, the Bay State system, and the Pittsburgh Railways Co., is going to mean that all of those companies will be elevated, and then the rural lines—if I might so term them: those with the cheapest rates—will have to follow suit.

You have therefore, as I say, a situation in which the industry is now called upon, or will be within a very short time, to take on at least a 25 per cent increase in wages. I think that is the outstanding fact of the moment.

We have been talking largely, all of us, about where we were yesterday and last month and last winter. The real problem is where are we going to be this fall and this winter with these increased wages; and the statistical record is before you. You know how little there is in the way of surplus revenue to carry these increases, and yet they are here, and they must be met somehow or other.

I have in mind an interurban road in the Middle West, the bondholders of which asked me to advise them. They have a protective

committee. That company is in receipt of demands from their men for wage rates based on these Chicago demands, and if those wages are granted the total revenue of that property on the rates now charged will not be sufficient to pay the wages; and yet that property, for many years, paid dividends, and has a value fixed by the commission of some \$14,000,000. They earned within a hundred thousand dollars of their fixed charges last year. There you have a condition which I do not think can be paralleled in this country—in the history of this country—and one the seriousness of which is in the immediate future, rather in the present or in the late past.

Now, therefore, to talk about, as I see it, the increased rates which had been granted in the past by commissions, or the increases which are now being asked for in cases pending and undecided, is to discuss the affairs of yesterday and not the questions which are the live matters of to-day. It is true that a large percentage of the companies in this country have, in some measure, received increases.

I took a computation made by the American Electric Railway Association and endeavored to bring it up to date by adding companies which had increased fares, and classified those companies according to the recent changes. On that basis I find—that is, by bringing their figures up to date—that there are, according to their statement, 273 cities in the United States, having a population of 25,000 or more. In over 200 of these fares have been increased from those which prevailed before the war. Of these increases, 135 were granted by public-utility commissions, and 52 by local authorities, 11 became effective under service-at-cost plans, 1 was put into effect by order of a United States court, and 1 by action of the company.

In 24 cities, applications for increases have been refused. In 20 of these cases, the refusal came from local authorities, and in 4 cases from the commissions.

Forty-two States and the District of Columbia have cities of more than 25,000. In 36 of these States, increases have been granted. In Connecticut, Delaware, the District of Columbia, Idaho, Maine, Maryland, Massachusetts, Mississippi, Montana, New Hampshire, New Jersey, North Carolina, Oregon and Rhode Island, increases have been granted in all cities of more than 25,000. In Arkansas, Florida, Kansas, Oklahoma, South Carolina and Tennessee, no increases have been granted in such cities.

A 10-cent fare is being charged in 29 cities; an 8-cent fare in 8; 7 cents, plus 1 cent for transfer, in 13; 6 cents, plus 1 cent for transfers, in 2; and a 7-cent fare in 20, and a 6-cent fare in 94.

Thirty-six applications are pending before commissions, 27 before city authorities, and 2 before courts.

Municipal ownership has been proposed in three cities—San Francisco, Detroit and Omaha. Service-at-cost plans are being considered in Philadelphia, New Orleans, Minneapolis, Denver, Louisville, Oakland, Berkeley and Muskogee.

In six cities, the service is being operated by the State, while State operations will be shortly under way in 12 more.

In 31 cities railway companies are in the hands of receivers.

In addition to these increases affecting urban systems, a large proportion of the interurban electric lines in the country have materially increased their fares.

Mr. WARREN. Has that been compiled up to date, Professor?

Mr. CONWAY. The compilation made by the officers of the American Electric Railway Association is as of April. I searched the files of the Electric Railway Journal and the Commercial and Financial Chronicle, and where a company had increased fares from 6 to 7 cents, I reduced the number of companies on which 6-cent fares prevailed by one, and added one to the 7-cent cities. In that way I endeavored to bring it up to date. I am quite certain it is not fully complete, but perhaps it errs on the side of understating recent changes, especially with reference to small communities; but that was as near as we could get any kind of an accurate picture of the situation as it prevailed.

Now, if I am correct in my assumption that these increases in wages which have come about in the last few days are the forerunners of another general advance, such as occurred in the late summer, then all of these increased rates are going to be as inadequate, or almost as inadequate, as were the rates prior to the time of the last increases. We have got to get over another mountain.

Therefore, as I see it, the record of increases in the past is of significance in pointing out the communities in which a recognition has thus far occurred of the economics of the situation, and probably the whole work has to be done over again in a few months to take up these labor increases, or if you do not, your companies will be back where they were, say, a year ago, if no increases whatever had been granted.

Now, as I talk to the ordinary man on the street—and after all his view, I think, is very important—he fails to appreciate the extent to which costs of operation have increased.

I well remember when the present Public Service Railway Co. appeared before the Camden Board of Trade, in Camden, N. J., composed of business men, who were acquainted with the changes in price levels, the gasp that went around the room when they were told that to haul within 2 per cent of the same number of people which the company carried in 1916 would cost in the year 1919–20, the year ending June 30, 1920, 80 per cent more. That gasp, as I say, indicated to my mind that they were taken off their feet. They could not believe the facts.

Now, if the 5-cent fare was adequate in the days when costs were as they were in 1916, anyone will readily admit that on the basis of averages an 8 or 9 cent fare will be required to-day to put the company where it was in 1916.

I think one of the problems which the industry must solve, and which I think this commission can perform a great national service in assisting in the solution of, is to get the people to understand the extent to which costs have increased. That is the first thing. The public are behind the times in this thing. They do not understand the relation of income and outgo.

Now, the second fact I think is quite evident, and that is the matter for which, perhaps, the commissions are in part responsible, and I do not except the companies. They have been shortsighted in talking about an emergency, to get through the war.

Mr. WARREN. Before you take up the question of emergency—you say the commission can do a great deal of good in educating the public as to increased operating costs?

Mr. CONWAY. Yes.

Mr. WARREN. How should that be done?

Mr. CONWAY. I had in mind more particularly this commission setting here. The average commission's opinion, from the standpoint of the requirements of the law, must of course meet certain requirements, but I notice that if you take even a college student and give him an opinion to read, he does not see the homely truths that lie at the bottom of the whole thing. He does not get the ordinary common denominator comparisons. The average commission does not point out the things in their opinions in a way that the man on the street can understand them. It is over his head, just like a decision of the Supreme Court of the United States. That is doubtless necessary from a legal point of view, but I have often felt that if there were a few paragraphs in the opinion which an ordinary man could understand, because they stated the truth in a homely way, and by the use of a few simple comparisons which he would understand, he would get the measure of the thing.

Mr. WARREN. Then, I take it, you think we should set out the figures?

Mr. CONWAY. It is not so much stating how many millions of dollars are required as it is stating the fare which is required. A man reasons in his terms of a nickel. The commissions' decisions deal with millions or hundreds of thousands, depending on the size of the company. To the ordinary man the difference between \$100,000 and \$150,000 or \$200,000 is not very great.

Mr. WARREN. But if you raise the motorman's wages from 40 to 65 cents an hour—

Mr. CONWAY. He understands that.

Mr. WARREN. He understands that?

Mr. CONWAY. Yes.

Mr. WARREN. Because it takes five more fares per hour to pay that man's wage?

Mr. CONWAY. That is the idea exactly.

Mr. WARREN. If you divide it up in that way, the ordinary reader could understand it; could he not?

Mr. CONWAY. That is right.

Mr. WARREN. Is that the idea you have?

Mr. CONWAY. That is the idea I have, or, stated in another way, that a car ride, according to the commission's finding, costs so much to-day, and say, five years ago, that same car ride cost so many cents. The commission goes through a lot of calculations, involving hundreds of thousands of dollars and a hundred operating accounts and valuations and a lot of things, and then says that the rate is fair, but it does not say what it cost the company, in cents, to furnish a car ride.

Now, the commission's opinion after all is justification for its finding, that is to justify its finding to a court of review, and I think it is just as important to justify it to the man on the street. It takes the language of the court of review. It apparently forgets the man on the street.

Commissioner SWEET. You think homeliness is a virtue?

Mr. CONWAY. Yes; in these opinions—

Commissioner SWEET. And homeliness is one of the characteristics of this commission. [Laughter.]

The CHAIRMAN. We need no evidence to prove that.

Commissioner MEEKER. As you stated, the increase in wages was the prime question, the prime question involved in the immediate problem, so that the determination of the labor policy is of the first importance. I take it, in your mind?

Mr. CONWAY. Do you mean from the standpoint of this commission or from the standpoint of the company?

Commissioner MEEKER. From the evidence that you yourself have adduced.

Mr. CONWAY. Yes; the result of the demands of labor, as I see it, is the controlling factor.

Now the public have a peculiar attitude on this labor question. I do not say this in any criticism, but as an explanation of the facts as I see them at this moment—that the extent to which operating expenses will be increased and the extent to which the fare must be increased, if possible, is determined, you might say, by the enlightened self-interest of labor.

Commissioner MEEKER. And the all-important thing is to stabilize so far as it is possible, the labor bill?

Mr. CONWAY. Yes.

Commissioner MEEKER. Have you any suggestion to give us along that line?

Mr. CONWAY. I think that is the great unsolved question that the world has got to solve.

Commissioner MEEKER. You are familiar with the so-called Plumb bill?

Mr. CONWAY. In a general way; yes.

Commissioner MEEKER. Do you advocate any such treatment as that to cure the street-railway troubles?

Mr. CONWAY. Well, I must confess that I have not been able to think out a practical solution of this labor question. The companies make a great mistake in each thinking in terms of itself. Without mentioning any names—a certain company will make an agreement with a labor union that they will give them a certain wage increase if the laboring men will help them force the fare up. Now they do not realize that whatever they do affects the entire industry. I do not know that you can change that situation; I do not know that it would be advisable to change it.

Mr. WARREN. But you do not think that any company often agrees to pay a higher fare than the best judgment of its managers would justify, in order to avoid a strike?

Mr. CONWAY. Well, that is it. I think the public-utility operators are like any other class of managers in that, as a practical matter, they can not afford a strike.

Commissioner GADSDEN. Don't you think it would be helpful to this commission and to the public if the representatives of organized labor in the street-railway field would come before the commission and give us their views on the subject?

Mr. CONWAY. I certainly do. If they would tell you frankly what their terms are, then you would know.

Commissioner MEEKER. Do you think it might be possible to bring on the street-railway men and the workmen, not merely the platform men, but the workmen generally—that if they were given some responsibility, a voice in the management of the industry, whether

it goes so far as the Plumb bill or not, if they could be made to realize that every time their wages are increased 5 cents per hour, it means so much increase in the cost of operation, which must be met by charging the riding public an increased fare?

Mr. CONWAY. I think there is no doubt of that. I think if they have to come to the point where in some fashion labor must take a responsible share—not in the management of the company, because I do not believe that we are far enough along for that, but you have got to the point where labor must feel that they are not dealing with an alien enemy, and that is their attitude with most companies. They have no interest in common with the company. They feel that everything they get is the fair spoils of war.

Commissioner MEEKER. They must be made to realize that they have an investment in the industry, the employees have?

Mr. CONWAY. They have got to realize that there is only a certain amount of money in the business, because in my judgment in many cases you have reached very close to the maximum under private operation. Now if they want to deliberately force the industry on a basis which it can not survive, as a private enterprise, and take their chance of Government control, or whatever may be involved, they ought to make that choice with their eyes open and a full understanding of the facts as they exist.

Commissioner MEEKER. Well, do you regard the labor question as the question for the immediate solution of this problem, and not merely as the ultimate solution, as I take it from your testimony?

Mr. CONWAY. I do not go quite that far, Dr. Meeker, because I feel that the street-railway industry prior to the war was on an unsound basis, in that they were not paying their men as much as they ought to pay them. I remember your study, as Commissioner of Labor, of the turnover of the men. Now, an industry where you have in prewar times as much a turnover as there was in the street-railway business is an industry in which there must be some degree of unhealthiness. The companies were up against the fixed, inflexible 5-cent fare. They were paying all they could pay their labor, but it was a rate which did not attract and hold the best class of men. Now the pendulum is swinging the other way perhaps. This union movement has swept over the world. The men have gotten together. They are recognizing and feel their power, and they are exerting it.

Commissioner MEEKER. You are not afraid that the apparent turnover will be reduced too low for the health of the industry, are you?

Mr. CONWAY. I do not think, if you have a desirable thing, there is such a thing as getting it too low. I believe in a man getting in a business and staying in that business. We all know that the street-railway job is a sort of a makeshift job. It is a young man's job, and it must be a young man's job in the nature of things.

Commissioner MEEKER. There is one thing in regard to the turnover in the street-railway industry, and that is the very undesirable hours that the men must necessarily work in order to serve the public and give it the service that it demands.

Mr. CONWAY. That is true.

Commissioner MEEKER. No matter how high the wages must be made, that can not be avoided.

Mr. CONWAY. There is no doubt that that is true, but you would not call the work of the motorman a skilled occupation. I think you

would call it semiskilled, but their wages and the continuity of employment can be brought up, I believe, to such a point that the industry will eventually attract and hold the higher type of men in years to come, a higher type than they enjoyed in the prewar days.

I have been interested, in looking over the pay rolls of some of these companies, to see what these men are making. Now, when a man can make from \$60 to \$80 a week—that is, \$80 every pay day, which is about \$30 to \$40 a week—that is good pay, even in these days, for semiskilled labor: and when you remember that he is not like the man employed outdoors, who only works eight months in the year, but that the street-car employee is working throughout the year, and that therefore his yearly earnings are much more—a comparison of his wage with, say, that of the bricklayer or stonemason, would indicate that you have a situation which, I think, in the future is going to be able to attract and hold the better class of labor, who will give better service to the public.

Commissioner MEEKER. Let me repeat my question: Is not the labor question, then, right in the forefront? Must we not solve the labor problem in the street-railway industry before we have made a beginning?

Mr. CONWAY. No: I should say you must make the beginning before you come to the final ending, and you will have to consider the wage.

Commissioner MEEKER. What is the use of raising rates to increase your income if it all has to go out in an advance in wages?

Mr. CONWAY. That, of course, is a matter which I am not prepared to form an intelligent opinion on, whether the wage rates now prevailing are exceptionally high.

Now, I infer from the recent findings of the War Labor Board that, in their judgment, a further advance in wages is due to the men. If such is the case, then I submit that they ought to get it when the industry gets the money to pay them. Now, when wages begin to go above a point which represents a fair living wage, then I agree with you; but this industry, my point is, has reached the stage where what it needs is a lifebuoy, and after you have saved the drowning man, we can then inquire why he fell overboard, and I am afraid that if we are going to try to regulate wages before we get the companies more revenue that while we are regulating the wages the patient will die.

Now, in order that I may bring clearly before you my feeling about the matter of increased fares, which I have been asked to discuss, I want to call your attention to some of the recent cases or proposals for fare increases.

The Kansas City Railways Co. in Kansas City, whose property was recently valued by the United States court and its capitalization fixed, has made application to the State commission for 10-cent fares, or two tickets for 15 cents; that is, a commutation rate of 7½ cents and a cash fare of 10 cents.

The Middlesex & Boston Street Railway Co., in Massachusetts, whose capitalization for a generation, as in the case of the other Massachusetts companies, has been subject to regulation, has filed a schedule, effective August 1, which puts the system on practically a 10-cent basis, with a 3-cent charge for transfers.

The Eastern Massachusetts Street Railway Co. (the old Bay State system), whose property has just been valued by the Massachusetts Commission and the company reorganized under the service-at-cost law in accordance with the findings of the commission, and is operating under public trustees, instituted a 10-cent fare on the 1st of July.

The Boston Elevated Railway Co., also operating under public trustees, instituted 10-cent fares from the 1st of July.

The president of the Chicago surface lines has announced that the rates of wages demanded by the men mean either a 9-cent or a 10-cent fare in that city.

The Pittsburgh Railways Co. will on August 1 institute a 10-cent fare, with 7½-cent tickets.

These 10-cent fares are to my mind the serious question. We have heretofore talked in terms of 6-cent fares and 7-cent fares, and latterly 8-cent fares, but these new wages mean 10-cent fares if you are going to stick to the straight cash fare.

Now, a 6-cent fare was a comparatively easy matter, but when you get to 10-cent fares, you are getting into deep water; and if the large cities must charge 10 cents, the rate of fare in the small towns is going to be one which is practically prohibitive. In fact, the whole matter, I am afraid, would become impracticable on the basis of getting the full cost of operation, under present conditions, out of the car rider.

I sat here this morning and listened to various gentlemen express their views on taxes—paving, for instance.

My belief is that, taking the companies as a whole, all the things that you can suggest of relieving them of taxes and of paying requirements and all of the other obligations which represent an indirect tax on the car rider, a necessary addition to his fare, will not meet the situation by offsetting these increased costs; but all of that, if given to them, still means for many properties a rate of fare which is almost prohibitive, as a practical question.

Therefore, as I see it from the commission's point of view, you start by these abatements as a necessary element, because without them there will be hundreds of electric railways that will have to go to the junk heap, unless they are to be taken over and operated by the public, who bear the deficit, through taxation.

Now my feeling about this matter is that this situation is so serious, due to the sudden addition of these wages, first last summer and fall, and now to make these new additional demands, that I do not believe that even the commissions themselves are fully aware of the crisis presented.

I have lived in the State of Pennsylvania. As I say, I have been in intimate touch with the situation in Connecticut. I have had the good fortune of being well acquainted with the commissions in both States. My work has brought me in close contact with their work, and with their staffs.

Now I think the public utilities laws of most States are fundamentally at fault. The Pennsylvania law and the Connecticut law—and perhaps other States have the same law, but I am not aware of the instances, if there are such—that have one tremendous advantage, and that is that in those States the companies can initiate rate increases or rate reductions, to make a change and put it into effect. The commission has the privilege of ordering the companies, if it

seems wise, to give some sort of a rebate, a slip or certificate for the amount of the increase.

To illustrate, if a company increased its fare from 5 cents to 7 cents, the commission, if they feel that there is any doubt about the justice of the matter, authorizes and directs the company to give every passenger a 2-cent rebate slip as he pays his fare. Those are carried as liabilities.

The commission in Pennsylvania or in Connecticut does not have the power of suspension without a hearing and determination of the matter, but if anyone complains about the rate the commission must go ahead and make an inquiry. The law requires the companies in Pennsylvania to post the increases conspicuously.

The CHAIRMAN. The Pennsylvania law has been described here by two witnesses, Prof. Conway, and you need not spend any time on that.

Mr. CONWAY. I did not know that. The point I want to make is that in Pennsylvania and Connecticut the companies have the right to increase their rates, and the commissions have the power to ratify and, so far as I can see by studying the opinions of the commissions, there have been no serious abuses to develop because of that condition.

Now the great advantage of that is, as I see it, that the companies are able to try experiments.

Let me illustrate some of the instances where it has worked advantageously. This rate situation, gentlemen, is not one of arithmetic or one in which there is any golden rule that you can arrive at mathematically. I am frank to say to you that this industry is in the experimental stage, so far as rates are concerned, and that these experiments are largely ahead of us.

The Pittsburgh Railways Co., for example, about a year ago last December, when the war costs hit them, increased their fare from 5 cents to 6 cents cash, or 5½-cent ticket. The War Labor Board then increased their wages. They then tried a so-called zone system, which I think can be called such only by courtesy. It is really two superimposed flat-fare areas. The commission held hearings on the matter, and it did not interfere. Now after a few months of that, they are going to abandon that system and go to a 10-cent fare.

The Wilkes-Barre Railways Co. tried a 6-cent fare, and then when wages went up they tried a 7-cent fare, and then an 8-cent fare. The matter is now being heard on its merits by the commission.

The Lehigh Valley Transit Co. first tried to keep the 5-cent fare by shortening up the zone, the distance you could ride for 5 cents, and the War Board said its say. Instead of again redividing the property into zones, the 6-cent fare was put in.

Those are simply typical instances of what has occurred. If that commission had been called upon to pass upon every application for an increased rate and decide whether or not it should be granted before it was actually granted or became effective, there would be utter chaos. I heard the chairman of the commission state that his men had averaged, according to the time sheets, which are accurately kept, over 14 hours a day in the last six months. He stated that to the legislature. And there were 700 cases on the calendar to be tried. Now, if each company's necessities required three trials, they would have been absolutely swamped.

Now, I want to say that I think part of the delay in many of these commissions in deciding these cases, which has been very unfortunate and very unfair, has been due to overwork. It has been due to this requirement of the law, or at least the interpretation of the law, by these commissions, that they must hold long hearings and go into valuations—the procedure of a regular rate case—before they do anything. I think that is a mistaken idea, and I think any requirement which imposes that duty upon a commission is a very shortsighted public policy. With the industry as it stands to-day, the crying immediate need, in my judgment, is to give the commissions liberty of action, freedom to put in almost any rate that they think will meet this exigency, and then, as in the case of Pennsylvania and Connecticut, let the commission observe the actual result and make the changes as seem necessary.

Mr. WARREN. Prof. Conway, may I ask you at this point—I assume you are through with your discussion of the specific labor question. You have said nothing about the 8-hour day.

Mr. CONWAY. No; I forgot that.

The electric railway industry is face to face with a world-wide demand for an eight-hour day. Now, in some businesses, I believe it is possible, to a large extent, at least, to offset the apparent increase in labor costs resulting from an eight-hour day, involving, as a rule, 10 hours' pay, under the old plan, for eight hours of work, on the theory that the old wage was a living wage, and the men must get a living wage with a shorter day, to offset that by a speeding-up process. The possibilities of such economies in the electric-railway industry are very limited. The motorman and conductor, who constitute the most important class of labor, can not increase their productive power in this fashion, for the speed of the car is determined by the track construction, as well as the matter of safety and convenience of the public requiring numerous stops. The size of the car can not be profitably increased so that he hauls more fares per trip. As a matter of fact, the tendency is in the opposite direction, smaller cars and more frequent service.

Therefore, the extent to which the companies can, by a speeding-up process, take up the cost of the eight-hour day is probably less than in any other business in the whole round of business enterprise in this country.

Now, I do not argue against the eight-hour day. I am not discussing the merits of what the men should get in the matter of wages or what the working day should be, but if we have an eight-hour day, we have not only an increase in the pay of the men on the hourly basis, but we have a large increase in the cost of operation.

The chairman alluded some time ago to the nature of the business. You must have considerable spreads, because the working day of the usual street-railway employees must be longer than that of other people in the community. To state the matter simply, they must be there to take other workmen to work, and they must be working after the other men have quit to bring them home; so their working day is considerably longer than that of other members of the community, who represent their patrons.

Now, with the eight-hour day literally applied, you have, on many properties, most difficult operating conditions, and in the application of that requirement to the service you have a great deal of lost man

hours, if such it may be termed, to meet the eight-hour day, and to get their working day within the certain limits of the spreads you have to pay for labor which is not very productive.

So it is not only the immediate matter of an hourly rate of wage that this business has to confront, but it is a matter of the readjustment of the hours of employees on a basis which raises the cost of operation; and I say, that—and I want to emphasize it—would prejudice to the rights of the workers, either to wages or to shorter hours; that is not a matter that I am here to discuss, but assuming that they are entitled to higher wages, and assuming that they are entitled to shorter hours, the industry, somehow or other, must bear the cost of both of those changes.

Commissioner GABSDEN. Doctor, the eight-hour day would impose greater costs for overtime; would it not?

Mr. CONWAY. Oh, yes. Let us take, for instance, the morning rush. On many properties it begins at 6 to 7 o'clock, bringing the factory worker to his plant, depending somewhat on the customs in the community. The rush-hour service in the evening must run up until approximately 7 o'clock, 6 to 7. It begins to taper off after 6. You have 12 hours in there. The requirements for rush service are anywhere from 140 to 160 per cent of the base schedule; that is, you have to have from 140 to 160 per cent of the normal service in these rush hours to take the workers to and from their work. That means that whatever may be the standard, you either have to have two sets of men, one set running the morning rush hour, and the other the evening rush hour, the cost of which would be prohibitive absolutely; or you have to pay the same set of men overtime to run in the morning and evening rush hours, and after they have been working an eight-hour day. They may work eight hours, but their working day covers 12 hours, perhaps, or 11 hours, and they get paid overtime for a good part of that time, especially if there is a requirement as to straight runs or swings between the various parts of the day's work.

Mr. WARREN. I might say on this point, Mr. Chairman, that the association is endeavoring to get some figures and estimates from those companies whose wages have been materially increased. There are certain companies which are making estimates as to the effect of both increased wages and the eight-hour day upon the pay roll, and I would like to file that, but the work is in process at the present time.

The CHAIRMAN. It may be of interest to know that the commission will have before it the representatives of the employees, so that we will hear fully from their side of the case also.

Mr. WARREN. I am very glad to hear you are going to do that.

Mr. CONWAY. I was asked particularly to endeavor to present to you the possibilities and limitations of increasing revenues from higher fares. It is a very large subject, and I would be grateful for any questions which may bring out any points that I can help you on.

From my observation and experience, I am fully convinced that there are very definite practical limitations on most properties of increasing rates. The theory which exists in the minds of many people that a street railway enjoys a complete monopoly is, in a limited sense, true, of course—if there are no other street railways in the community; but, as a practical matter, there are very few electric railways which, in a positive sense, enjoy a monopoly, and that fact is being developed in rather painful fashion to many electric-

railway operators as they endeavor to get their revenues by higher fares.

Now, I want to make it clear before I begin this discussion that I am absolutely convinced, as I feel certain anyone must be, that, with private ownership and operation, the electric-railway business must, in some fashion, get sufficient revenues to equal its operating expenses, to set up a proper amount for maintenance and depreciation, and to give a fair return upon the value of the property, because, as one of you said this morning, these properties are never finished, new capital is required from day to day and from year to year. To get that new capital and to provide the facilities which the public demand and have a right to expect, it is necessary to give these companies a fair return. It is not a matter necessarily of equity, as I see it, from the public standpoint. It is a matter of self-interest. The average man will have to realize that the giving to the owner of the street railway a fair return is not a gratuity or charity, but it is just as much to his interest as it is to the owner's interest, if he wants to get good car service or, indeed, for any length of time, any car service worthy of the name. He has to do that. The ordinary man thinks to give the owner a raise of fare is the same thing as giving a beggar a quarter. At least, many people feel that way. They do not realize that their interest is fully as great as that of the security holder.

Therefore, I heartily agree with the view that the companies must get sufficient revenues, but what I want to point out, if I can, is that in getting these revenues there are practical difficulties, and without wearying you, I hope, with the details of these difficulties, I want to develop, if I can, the extent to which they enter into the problem that you are considering.

To begin with things which, perhaps, are well known to all of us, when 6-cent fares were instituted, we had a theoretical increase of 20 per cent in the rate, but very few companies got a 20 per cent increase in revenue. The revenue increase that you can generalize—and the value of generalizations about increases is very limited, except as indicating a trend—but if you can generalize, the increase in revenue, from a 20 per cent increase in rates, was about 10 per cent, the difference is due to the falling off in riding.

The CHAIRMAN. Have you studied the comparative results of a sufficient number of companies to form that conclusion?

Mr. CONWAY. I think I have; yes, sir.

Some time ago I collected all of the data that I could get together and published an article in the Electric Railway Journal at their request for a review on the special results on the 6-cent fares.

The CHAIRMAN. What was the date of that article?

Mr. CONWAY. It was printed about a year ago, or a little more, perhaps. It was based upon the commission's reports largely.

The CHAIRMAN. How many plants did you study for the purpose of making that report?

Mr. CONWAY. My recollection is that it was something over 75 companies for which I could get official statistics.

The CHAIRMAN. All right. You may proceed.

Commissioner MEEKER. Over what length of time did your studies run?

Mr. CONWAY. Of course, that varied, depending on the company.

I took the first increases in Massachusetts, where the 6-cent movement began, and then followed it through, taking the experience of the companies, one after another, which raised fares.

Commissioner MEEKER. Do you think the time was long enough so that the first resentment against the raise in fare was done away with, so that they could get it back to normal conditions?

Mr. CONWAY. That was true to some extent. Of course, in reference to later cases, it was not so.

Commissioner SWEET. Would you not admit that your figure may be a little bit low if you brought it down to date, because of the tendency on the part of the public to become accustomed to the change and, for that reason, might acquiesce in the arrangement to get more revenue?

Mr. CONWAY. There are so many things that enter into these comparisons, Mr. Commissioner, that any comparison concerning the influence of a rate of fare over a period of months is very dangerous. For instance, you have the influence of the war, or the cessation of the war; you have the influence of the influenza epidemic; a comparison of the severe winter year before last with the mild winter of last year; you have the presence or the absence of the soldiers, which has an effect upon evening riding, by girls going out, etc. I have heard many street-railway operators say, and I think there is a great deal of truth in it, that the only one true comparison is what happened just before the rate was raised and what happened just after, because, when you get away from there, there are a lot of influences that you can not measure.

Now, we all know, taking, I suppose, the average of the companies, there is about a 5 per cent increase in travel, as a normal increase. That is true of the country as a whole, as shown by census figures. It runs pretty nearly true to form with a lot of the properties that I have studied. In two years you will have a 10 per cent increase in traffic, comparing the receipts of to-day with the 6-cent fares, with the receipts of two years ago with 5-cent fares.

Commissioner SWEET. In 1918, instead of there being any increase in travel, there was an actual dropping off?

Mr. CONWAY. In some companies that was true. In other cases, there was a tremendous increase of riding.

Commissioner SWEET. It has been a very unfortunate period in which to measure accurately the effect of increased fares, has it not?

Mr. CONWAY. That is absolutely correct.

Now, take the matter of the 7-cent fare. As a general rule, a 7-cent fare, with a large group of lines, would give you from 15 to 25 per cent increase. Now, how is that increase made up? It is an average, and it is a good deal like the life of a man. When you say the average life of a man is 65 years, we include the fellow who dies at 21 and the man who dies at 99, and all those who died at intervening ages.

I made a very careful study concerning the effect of 7-cent fares on the Public Service Railway Co. That property, as I say, covers practically the whole State of New Jersey. You have every condition there and all sorts of lengths of riding, differing widely as regards the length of the ride, and their average was about 15 to 16 per cent for the property; but when you come to study that, in so far as it affects particular routes, you find the widest divergent conditions,

and if each of these separate routes had been a separate company, you could have found instances where the increase had been nothing, where there had been an actual loss in travel; so with a line earning less money on 7 cents than it did on 5 cents, it would offset some other line where they would earn a theoretical increase of 40 per cent.

That is why I say generalizations are dangerous. I took two months which, after a careful study of all the surrounding facts and previous history of the company, were found to be typical. I found that lines under 1 mile in length showed not only a loss in travel, but the loss was so great it showed a loss in money. I found that lines operating from 1 to 2 miles showed a lower ratio of loss than those which were shorter, except where there was active jitney competition.

Twelve lines out of the thirteen lines falling within this group showed an increase of revenue—

Commissioner SWEET. That is, from 1 to 2 miles?

Mr. CONWAY. From 1 to 2 miles, although the increases in most cases were slight.

Lines varying from 2 to 3 miles in length show mixed results. An analysis of the figures seem to indicate that the variation is due to differences in the average length of ride and to the presence or absence of jitney competition. Taken as a whole, these lines show up no better than the shorter lines.

In this comparison, I had the advantage of a very accurate passenger count, which was taken at considerable expense, and which, in substance, showed the exact length of the journey of the passengers on the line. Each passenger getting on the cars was given a slip, on which was noted where he boarded the car, and he wrote down where he was going to leave the car, and where he was going to ride on a transfer if he got a transfer. So we not only knew what happened, but we were able to ascertain the proportion of people riding a half mile, three-quarters of a mile, a mile, a mile and a quarter, etc.

Commissioner SWEET. If you had crowded cars, how could you get people to do that?

Mr. CONWAY. We had no trouble. During the war we had as many as 180 people on one car, and we got over 95 per cent of the people to fill out the slips. We were taking this check at the order of the commission, and the public felt it was their duty to cooperate. It sounds almost unbelievable, but it can be done. The reason they took the check was to work out the zone system and get data relating to the traffic; but I used the opportunity to study the 7-cent fare question, and to see what the possibilities of the flat increases were.

In general, on these lines which I have just described, from 2 to 3 miles in length, where the average ride exceeded $1\frac{1}{2}$ miles, and where jitney competition was not present, the net results were a considerable increase in revenues.

When the group of lines ranging from 3 to 4 miles in length is reached, a distinct improvement is noticed. Certain lines in this group, as, for example, the First line (central division), are not comparable, because of rerouting. The gains secured on Harrison, Park Avenue, and a number of other lines, are minimized because of active jitney competition; but, taking all things into consideration, the loss of riding on these lines was not nearly as great as on the

shorter routes, and the reason was that there was a larger proportion of people taking rides of a mile or more.

When we got to the lines of 4 miles in length, we found a still greater improvement, and so on, as the length of line increased and the average length of line increased.

Now, generally speaking, the result seemed to show that the 7-cent fare was driving most of the passengers riding a mile or less off the cars. On a particular day we checked some lines under 5 cents, and then we checked the same lines under 7 cents, and got some data and compared the results. The long riders stayed with you and the 7-cent fare drove away a considerable part of the short-distance riders, especially those riding less than a mile.

THE CHAIRMAN. Does that hold true more fully in these congested areas?

MR. CONWAY. Yes. In the rural districts they rode, I suppose, because the sidewalks were not there, and you had less jitney competition, although in the smaller towns, such as Plainfield and some of the other smaller communities, like New Brunswick, and towns of ten or fifteen or twenty thousand people, the results were rather disappointing. People walked.

The most disquieting thing in many respects was the effect of the 7-cent fares on the jitneys. The 7-cent fare became effective October 15, 1918. From the 1st of October, 1918, to the 1st of June, 1919, the jitney business increased 100 per cent in the actual number of passengers handled by jitneys, as shown by our checks.

In the city of Bridgeport you have the most hopeless condition I have ever seen with reference to the jitneys. The jitneys in Bridgeport, in April of this year, when we made a very careful check of the matter, were handling just a little under two-thirds of the total people riding, either on trolleys or jitneys, in the city. They have a 6-cent fare there. The jitneys are charging 5 cents. With the jitneys you have a large amount of short-distance travel in the city.

The figures on Waterbury, Hartford, and New Haven, where the average journey is greater, shows a much more healthy condition; but my point is that, with a 1-cent differential throwing more than half of the total business of the city to the jitneys, it is idle to talk about 7, 8, 9, or 10-cent fares. It is just an exercise in arithmetic. You might as well close up shop and stop operating, and let the jitneys haul all the business.

MR. WARREN. That is a flat fare?

MR. CONWAY. A flat fare; yes.

This Connecticut company, operating over the whole State of Connecticut, showed less than 0.8 of 1 per cent passenger revenue under increased fares for the first 12 months of operation under such fares.

MR. WARREN. What were those 12 months?

MR. CONWAY. The fare was put in effect in October, 1917. That would carry it up to the fall of 1918.

Commissioner GADSDEN. That was very much improved later, though, according to the testimony of their expert, Mr. Storrs, before the commission.

MR. CONWAY. That is true.

Mr. WARREN. In Massachusetts, in that same relative period, where fares were not changed, as I recall the figures, in communities similar to those in Connecticut, like Worcester, and cities in the western part of the State, it showed an actual decrease in traffic.

Mr. CONWAY. Yes; but those companies with 6-cent fares, as I remember it, did not show any increase in revenue.

Mr. WARREN. Well, take Springfield. Their fares were increased on a different plane, and they showed a very gratifying increase.

Mr. CONWAY. The point I want to make is this: You have various factors that have to be considered, which I want to lay before you as controlling elements, I think, in helping to work out a solution of this question.

In the first place, there is a large amount of the street-railway business which is what I call convenience riding. It is not necessity riding. I refer to the man whose journey is less than a mile. He can walk, and he will walk, when you get to a certain point with your fare.

In some cities, taking the country as a whole, I think you now get better results from the 6 cents than you did two years ago. People are used to it; they expect it, and they think it is fair. There is not any of that spite walking, as I sometimes call it—walking to spite the company. Six cents does not mean much. Men will pay 6, 7, 8, 9, or 10 cents for cigars and everything else, and they are used to it.

The city of Schenectady, for example, showed a theoretical increase of 20 per cent when they put the 6-cent fare in, while some cities very similar to that, in New York State, did not show anything like that when they put the 6-cent fare in. But I am not talking, in most cases, for the immediate future, about 6-cent fares. They are almost as out of date as 5-cent fares are. The thought that I want to leave in your minds is what is going to be the effect of the 10-cent fares and the 9-cent fares. That is where the fare equation is being carried by this labor development that is here and ahead of us. What is that going to do with the companies in the little towns, where everybody lives within 15 minutes of their work, and walking is easy, and what is going to be the effect of it on the amount of riding in the big cities?

I have some interesting figures, which I got just before I left Philadelphia, from Boston, concerning the effect of various raises there. Their lines, in the first few days of 10-cent fares, showed approximately 60 per cent increase over the 5-cent revenue. Eight-cent fares, which were in effect in December, 1918, to June, 1919, showed from 36 to 46 per cent increase over the 5-cent revenues. The 7-cent averages ran from—well, I will leave out October, when they had the influenza epidemic—from 12 to 21 per cent increase over the 5-cent fares.

Now, Boston, from my knowledge of the property, and from general knowledge of other cities, ought to show much better results with these high fares than any city I know of, because of the fact that there is very little riding in the shopping district of Boston, the cars are all run underground, a large part of the surface tracks are pulled up in the center of town, and yet there they do not get a theoretical increase.

Mr. WARREN. There is no jitney competition there.

Mr. CONWAY. There is no jitney competition there. The long-distance riders are flocking to the railroad trains, to a point where they are embarrassing the railroads, taking advantage of the commutation rates, and a great deal of walking has developed.

Now, these are facts which we can not ignore. The increase in fares drives a continually larger number of people away, and I think it would be unfortunate if the impression grew up in your minds that it is a matter of an arithmetical average—that by dividing the operating expenses by the number of people and getting a result, and saying that all you have to do is put the fare up to that level and you solve the problem. It is very far from being that, with the high costs of the immediate future, as I see it.

Now, on the other hand, if I am correct in my belief that the companies should be allowed to quickly readjust their fares to take care of these increasing expenses, the halter should be taken off, and they should be told to go ahead and try to work this out, put in any change in rates, and allow the commissions to revise and correct any inequalities later on.

I do not mean to infer that the companies should not increase their rates by increasing the flat unit of fare. There are only two ways to get this. One is a flat increase in the unit of fare, and the other is some sort of a zone system.

Now, speaking generally, if you are to face that emergency, you will have to have a simple remedy; and a simple remedy is to increase your flat unit of fare; and that, I think, is what the industry will have to do.

Now, whether that will solve the question is a far more serious matter. Whether 10-cent fares, with loss of riding that it occasions, is the answer, is, in my opinion, a far less settled question; but this much I am certain about: A zone system, applied under conditions of heavy urban traffic, such as you have in our large cities, is in this country still in an experimental stage.

Last fall and winter I visited every city in the United States in which there was anything approaching a zone system. The zone system was successfully applied on interurban and suburban lines, but when you came to putting it in under strictly urban conditions, such as travel in the large cities, you have to answer that it has never been successfully done.

The CHAIRMAN. Not even in Europe?

Mr. CONWAY. It has been done in Europe; yes, sir.

Mr. WARREN. But not in this country?

Mr. CONWAY. Not in this country. And I want to make this point: There is a vast difference between operating conditions, such as I understand them to be, in Europe, and as they are in this country.

In the Public Service Railway investigation we had an unusual opportunity to get a comparison. Sir Robert Stanley, the first president of the British Board of Trade and a member of the British Cabinet, left the general managership of the Public Service Railway Co. to go to England and manage the London omnibus, tramway, and underground system. He knew the Public Service property, which is typical, I think, of city properties; he had operated successfully with a zone system. But Sir Robert Stanley would not

say, when the question was put up to him, that that method of fare collection, which successfully worked in London, would work in Newark, or Jersey City. There are differences which have to be dealt with.

Now, there is another thing: I heard a gentleman say here last night that he would solve this matter by taking these street railways, and he would shorten the 5-cent ride to a radius of 3 miles, and then if you ride beyond that 3 miles you would pay another 5 cents. Now, without considering the sociological features at all, he probably had in mind one instance; but from my knowledge of the Connecticut properties in places like Hartford, New Haven, Waterbury, and Bridgeport, I sat here and smiled, because I realized that that was no solution at all for those properties. Practically the whole town comes within the 3-mile radius; and to say that it should be 3 miles for 5 cents is just as foolish as to say you ought to haul a man over the municipal area for 5 cents. There is no relation whatever to it. The cost of operation of a property, as the chairman knows, differs to a considerable extent from other properties under the same commission jurisdiction.

Now, the zone system, to be applied, must not be ready-made and put on as he suggested. It is the result of a careful study of the riding habit of the community, of the number of people taking rides of varying lengths. Some idea of the amount of work that is involved is conveyed by the experience in this Public Service Railway investigation. That investigation was begun on the last day of July, 1918. The company was ordered to present its report on or before January 1, 1919, four months later. The traffic engineers of the commission worked with us in this investigation. We invited them in. We asked their help. We wanted them to know what was being done, and wanted their advice. We had over 175 people at one time working there, trying to get it done, and the best we could do was to present the report on the 11th day of March, the commission having extended the time twice. That was about eight months. Now, when we have a 25 or 30 or 40 per cent wage increase to face, you can not work out something that is going to take eight months before you have the answer. That is why I say the immediate answer is to give the companies latitude, to let them put in anything which seems to be fair and which meets the emergency. That is the first thing that must be done as an emergency solution, and then, if the commissions want to value the properties—which I think they should, if they have any doubt about the value of the properties—and investigate the fairness of this proposal, assuming that the companies make it a permanent scheme, let them do it afterwards. If a better solution, such as the zone system, can be worked out, let that be done; but, in the meantime, allow the company to live.

Now, I have confidence that eventually a solution will be found. I do not believe that anybody understands or clearly sees the exact lines of that solution of the fare question to-day. My judgment is that if the matter of fare collections can be solved, I think we will have gone a long way toward the solution of it. Some sort of zone system is going to be the eventual solution, but that is in the future. It is not an accomplished fact. In the meantime, the companies must be allowed to get this money as best they can.

The CHAIRMAN. You think the zone system requires a long study of each particular plan?

Mr. CONWAY. Exactly. You can not have any made-to-order solution of it.

Mr. WARREN. Well, a flat rate could be put into effect at once; could it not?

Mr. CONWAY. That is something that the public understands.

Mr. WARREN. And whether the Boston trustees have treated the situation in the wisest way or not—and personally, as a Boston man, I have a great deal of doubt as to whether they have, as to whether a study of the situation would not have developed a plan to bring in more revenue—yet it is a fact that in the first two days of the 10-cent fare, involving a raise of 2 cents on top of the previous raises, and in the very days when whatever spite walking must be evidenced was in effect, they were increasing the revenue 60 per cent over the old 5-cent fare.

Mr. CONWAY. That is the statement that is made.

Mr. WARREN. And appreciably over the 8-cent fare also?

Mr. CONWAY. Yes, sir.

The CHAIRMAN. Gov. Foss said yesterday that the 10-cent fare caused a loss of \$1,000 a day. Where did he get those figures?

Mr. CONWAY. I don't know.

I have here, and perhaps it would be well to read it into the record, this letter, dated July 18, from the general auditor of the Boston Elevated Railway Co. I wrote to Mr. Neal, the president of the company, asking him for figures concerning the effect of various increases in fares, feeling that it might be of interest to you. The general auditor, Mr. Reed, writes me as follows:

As Mr. Neal has been very busy in connection with the strike of our employees he has asked me to answer your letter of July 16. I believe the inclosed statement will give you the information desired.

Regarding the rates of fare I would say that up to July 31, 1918, we had a universal 5-cent fare; from August 1, 1918, to November 30, 1918, a 7-cent fare; from December 1, 1918, to July 9, 1919, an 8-cent fare, and from July 10, 1919, a 10-cent fare has been in operation. It is too early to determine the real effect of the 10-cent fare, as it was in operation but a few days before the strike, and because of unusual conditions. Opinions vary as to what the result will be, but we eventually hope for an increase of 60 to 65 per cent as compared with the 5-cent fare.

As you probably know, our universal fare allows a transfer without charge between surface and surface cars and between surface and rapid transit, or vice versa.

Now, if we take this Boston illustration, as I read this letter, from July 31, 1918, to the 10th of July, 1919, they had 5 cents, then 7 cents, then 8 cents, and then 10 cents. Now, they were already under public trustees, and they ran a big deficit that had to be assessed to the community under the service-at-cost act. Is it not clear to everyone's mind that you can not expect the Public Utilities Commission to reconsider a case four or five times in a year? And yet that is what has to be done. This industry, as I said, and I think some of you thought, perhaps, I was overstating it, is in the experimental stage. To my mind, the immediate trouble is more serious than that which confronted the industry in the early nineties and late eighties, when the agitation was on as to whether you should have horse cars or electric cars. That was a mechanical problem. If one person solved it, it was solved for everybody, but as the chairman has said,

the solution here differs with almost every property. You have here an economic question to solve. And the thought I want to leave with you is that there is a very serious doubt in my mind with reference to at least a large percentage of these companies, whether it is practicable to get a rate of fare which will give you enough money to pay all of these costs and to carry this tax burden, this paving burden, and all these other things. This industry, in other words, has to reorganize itself, and in that process of reorganization it has to have a chance to thrash around, to try a lot of experiments, just as is being done everywhere—put in a rate, and if it does not work, take it out and put another one in, because it is only by these experiments that we are ever going to get the information which is necessary to work out a solution. If the commissions are going to be required by public opinion to hold hearings lasting four or five months, to make valuations and take a year's time to make one change, why, gentlemen, the situation is hopeless.

The CHAIRMAN. Now, assuming that a great many commissions do raise rates and that the people are induced to travel, and it does not bring in revenue enough to pay the operating expenses and fixed charges, then what have you got to do?

Mr. CONWAY. Then you have pretty nearly reached the end of private ownership and private operation of the business.

Mr. WARREN. Do you mean if, after experimenting, they can find no way?

Mr. CONWAY. That is what I understood him to mean.

The CHAIRMAN. Do you believe in public subsidy of a private corporation?

Mr. CONWAY. I do not. I think in principle it is vicious.

The CHAIRMAN. Then, if these public utilities can not maintain themselves, the solution is government ownership?

Mr. CONWAY. I would not go that far; but I do say we ought to give the matter of private ownership a thorough trial, and private operation. Let the initiative of the operator have free play. If he can not work out a problem, then he has a property for sale. I do not think it makes any difference to him whether the buyer is to be the junkman or whether it is going to the municipality, if he is satisfied he is through and he can not work it out; but that is the last resort, in my opinion—public ownership. I think a substitute, in general principle, is bad, because I am a believer in individual initiative, and in giving a reward for efficiency, and in giving the railroads freedom to work out the best methods.

Mr. WARREN. But don't you think it may be of such importance to maintain the service that the company can not work out its problem, and yet it is a case where the road ought not to be discontinued, and that in the interest of the public a subsidy might be advisable pending a determination of whether the public would in some way take over the property?

Mr. CONWAY. I think that is true; yes. In other words, during these critical days, in which, perhaps, discouragement may come because a solution has not yet been found, it would pay the public to support the companies, at least for a sufficient period of time, that the entire problem be understood by all parties and the most advantageous solution found, no matter what may be the solution determined upon.

Mr. WARREN. Could you say just a word—I do not want to prolong your examination unduly—but from your study of rate regulation as applied by municipal authorities and State authorities, what would you consider the better method of treating that subject?

Mr. CONWAY. Oh, generally speaking, there is no doubt in my mind that State regulation, through a utility commission, is better than municipal regulation.

In the first place, the State commission, assuming the same set of men are doing the regulating, will do better work than those men would as municipal commissioners. The State commissioner, if he gets in there knowing nothing about the business, and unfortunately many of them do come to their positions in that way, is educated; he can not sit there day after day and listen to cases and to witnesses dealing with these matters without getting a pretty good education in the course of a few years on the question. Now, you take a councilman or a mayor. There is only one out of three or four or a half dozen of them that ever has a rate matter to consider. They come there without very much knowledge—and it is certainly true that in that respect a little knowledge is a dangerous thing—when they have any, and they have no trained advisers, such as the engineers and accountants of the commission. The cities have no trained lawyers, such as counsel of the commission, that can bring out the facts; and the consequence is that justice is not done because of a lack of knowledge of the judges. You might as well put a layman on the bench and expect him to administer justice in municipal regulation.

Commissioner SWEET. I would like to ask a few questions, Prof. Conway. I think you have given us some very valuable information, but really it is very discouraging as a whole, especially your final conclusion; at least, it would seem so to me.

Do you think it would be possible to induce the public authorities of the various municipalities of the United States, or State commissions, to throw the doors open as wide as you suggest and give the companies a free hand to place the fares wherever they please, right off, as an immediate measure?

Mr. CONWAY. It certainly will never be done unless somebody suggests it to them.

Commissioner SWEET. Well, would it be done if it were suggested?

Mr. CONWAY. Perhaps not, but this far, Mr. Commissioner, I think it will help: The average commissioner, I believe, except, perhaps, where it affects his own home town, his own neighbors, wants to do the right thing. Now, if they hold these cases up, you go in and talk to them in their private offices, or you meet them on the street, and they will freely admit that these prolonged hearings are not fair to the company, but they will say to you, "We must give everybody in the community all the time he wants to talk himself to death, or he will go out and howl that the commission sat on him and would not give him a fair hearing."

Commissioner SWEET. That is true, isn't it?

Mr. CONWAY. Yes, sir; and it means hundreds of volumes of testimony.

Commissioner SWEET. Yes.

Mr. CONWAY. Most of which is utter nonsense. Now, his time is frittered away on these things. My observation is that the moment

the rate goes in it is a nine-day wonder if it does not outrage the community because it is so ill-advised and poorly conceived. When you come to the trial of the case, the newspapers in Pennsylvania give it very little notice. My observation is that most of the time is taken up with the disputes about facts, where you have no guide. In one city a 6-cent fare is going to give you an 18 per cent increase and in another city an 8 per cent. Instead of spending time on those questions, why not put it in and see what it gives you?

Commissioner SWEET. As I understand it, in Pennsylvania, where the rate can be changed practically at the option, temporarily at least, of the company, by putting it in——

Mr. CONWAY. Filing a new tariff.

Commissioner SWEET. Pending a decision?

Mr. CONWAY. Yes.

Commissioner SWEET. Even there an effort has been made in every case that has arisen so far to make a specific rate, and it must be. There has been no instance, has there, where the door has been thrown wide open and the company allowed, at its own sweet will, to place the fare wherever it pleased?

Mr. CONWAY. Yes; that is the situation. Take the case of the Pittsburgh Railways Co. Before the 6-cent fare went into effect the commission held hearings and allowed the 6-cent fare to go in but required the company to sell two tickets for 11 cents, instead of 11 tickets for 55 cents, as they wanted to do. Now, since then the company has twice changed the rate, and the matter has not yet been decided.

Commissioner SWEET. But if I understand you right, the State commission, of its own motion, could put a veto on that?

Mr. CONWAY. No; except it went through the process of determining the justice of the rate. What the State did was to immediately begin a valuation of the property.

Commissioner SWEET. It goes into effect immediately?

Mr. CONWAY. Yes.

Commissioner SWEET. But could not the State commission, without waiting for a complaint, decide against it?

Mr. CONWAY. Not without getting the facts. In other words, they can not just arbitrarily say that the rate is excessive. They have to have evidence to support it.

Commissioner SWEET. But still that could be done in a very formal and brief way, could it not?

Mr. CONWAY. Well, you would have to satisfy the courts.

Commissioner SWEET. Well, laying aside the situation in Pennsylvania and Connecticut, and taking other States where they have no provision of that kind——

Mr. CONWAY. Yes.

Commissioner SWEET. Don't you anticipate that it would be a very difficult thing, indeed, to bring about a situation that would permit the companies to place their fares wherever they saw fit?

Mr. CONWAY. Mr. Commissioner, my own judgment is that the commissions themselves are coming to this view. Let me illustrate:

The last issue of Public Utilities Reports, annotated, contains the opinion of the Illinois Commission denying the application of the surface lines in Chicago for 6-cent fares. These newspaper clippings that I received before coming to Washington yesterday contain what

represent to be an interview with the chairman of the Illinois Commission, in which he says that, without any hearing, he is individually prepared to allow the companies to advance their fares enough to take up these extra wages.

Mr. WARREN. Who said that?

Mr. CONWAY. The chairman of the Illinois Commission is quoted as saying it by two newspapers.

Commissioner SWEET. As related to what point?

Mr. CONWAY. To Chicago.

Commissioner SWEET. To what point have they raised the fare?

Mr. CONWAY. He does not know yet, because they have not gotten the wages. He is willing to give the companies immediate relief to the extent of the raise in wages, but he is careful to say that that is his individual view.

Commissioner SWEET. As a measure of relief, don't you think something should be done to prevent jitney competition?

Mr. CONWAY. It should be done; yes, sir. I do not know how far you can go with it. The Connecticut company, as an instance, concerning which I think there is no more friendly public feeling anywhere than is found by that company in the State of Connecticut; it is surprising how little animus there is to that company, probably because the trustees are operating it—

Commissioner SWEET. Do you think the State should regulate them, the same as a street railway?

Mr. CONWAY. That would do it.

I might tell you what happened in that Connecticut case, showing how difficult it is to manage the jitney situation. The Legislature of Connecticut, at the instance of the governor, appointed a special committee to study the problem of the street railways in Connecticut, and they recommended various forms of relief. Among others was the putting of the jitneys under the control of the utility commission. Now, the legislature considered all of these measures, and gave them nothing. They did report out a jitney bill which had teeth in it, and which put the jitneys under the control of the utility commission. The Street Railway Union; the American Federation of Labor, with which the street-railway men were affiliated; the jitney operators ran excursions from the sister cities in Connecticut; they rode in jitneys from Bridgeport and Hartford, and they got a clique, and they took the galleries the day that bill came up for consideration, and they made so much noise that you could hardly tell what was going on. The legislature evidently thought that this was aroused public opinion. The bill was emasculated. The value of it is very debatable.

Commissioner SWEET. I have nothing further.

Mr. WARREN. Thank you very much, Prof. Conway.

I have one other witness, Mr. Chairman.

STATEMENT OF MR. HALFORD ERICKSON.

Mr. WARREN. Your full name, Mr. Erickson, is Halford Erickson?

Mr. ERICKSON. Yes, sir.

Mr. WARREN. You were formerly chairman, I think, of the Wisconsin Railroad Commission?

Mr. ERICKSON. I was a member of the commission for 11 years, and chairman part of the time.

Mr. WARREN. Yes. That is, as a matter of fact, the Public Utility Commission or the Public Service Commission of the State of Wisconsin?

Mr. ERICKSON. Yes.

Mr. WARREN. Otherwise called the railroad commission?

Mr. ERICKSON. It has jurisdiction over railroads and all other public utilities, including street railways.

Mr. WARREN. Now, you have made a pretty thorough investigation of the street-railway situation, have you not?

Mr. ERICKSON. I have had occasion to go into it from time to time quite fully, as fully as I was able to under the circumstances, both on the commission and since.

On the commission we had to appraise, prescribe accounting, audit the books of every street-railway company, and make rates for every street railway in the State. Since I got out of the commission we have appraised about seven or eight hundred millions of dollars of utility property, audited their books, and made rates for a large proportion of them. I suppose of that, 15 or 20 properties represent street-railway properties.

Mr. WARREN. As a matter of fact, have you not made a very careful preparation or statement on this situation in reply to a questionnaire from the Chamber of Commerce of the United States?

Mr. ERICKSON. Some time ago the Federal Chamber of Commerce asked me to testify in some hearings that they had here in Washington. I was not able to get there, but I prepared a rather lengthy statement on the street-railway situation, based upon the analysis of the accounts, valuations, etc., of some 30 or 35 roads or more, part of which we had to appraise ourselves, and based upon as many other facts as I could get hold of. The greater portion of the paper, however, was devoted to the indeterminate permit, which I was requested to testify on, in addition to a sort of survey of the situation as a whole.

Mr. WARREN. I propose, if I may, to leave a copy of that with the commission, because I think, in view of Mr. Erickson's broad experience and varied experience, it would be a very valuable contribution to this investigation.

You have also prepared some data for this investigation, Mr. Erickson?

Mr. ERICKSON. Yes; I have. I have had a very short time on that, but I used the facts as to the conditions of the railroads which I dug up at the previous hearing and presented them in a different light, and then, in this case, I went into State versus local regulation.

Mr. WARREN. Which we asked you especially to consider?

Mr. ERICKSON. Yes. In addition to that, I have also summarized the results of very extensive investigations as to the cost upon which capital can be had. Part of that investigation was carried on in connection with the work of the Newlands committee—I mean the congressional committee—and part of it has been carried on in connection with other rate cases. That investigation embraced practically every railroad in the country, and public utility, the securities of which were listed, and the leading manufacturing plants throughout the country.

Mr. WARREN. You have a memorandum of this last study; have you?

Mr. ERICKSON. Yes.

Mr. WARREN. Will you give the commission briefly, and still so that you will do the matter justice, what you found with reference to the street railways and with reference to the cost of capital, before you take up the question of the study of municipal control?

Mr. ERICKSON. I took the operating results of some 35 roads representing the conditions before the war, or 1914 and 1915. I also went back several years, as far as to 1894.

Without going into detail, I might say that in 1915, the cost per ride, per passenger, without anything for return, without anything for depreciation, amounted to 3.6 cents. Eight per cent on the value of the property amounted to 2.5 cents, making at that time the cost of every ride over 6 cents, if the road should have received reasonable returns. That was before the war.

From 1910 to 1915, the net earnings fell 33 per cent, approximately 34 per cent on these 35 or 40 leading roads. The reason for the bad condition, of course, in 1914 and 1915, is almost entirely due to high prices. Prices have been steadily rising. They had increased about 50 per cent from 1896 to 1915; that is, for commodities alone, and about 40 or 45 per cent for labor. Those increases had been gradually going down. The conditions of the street-railway companies were fairly good up to 1910 from 1900, but at that time the increase in prices worked very fast. Since that time, conditions began to grow worse. From 1915 to 1919, of course, we know what the situation has been. During the intervening time, prices have doubled for both labor and materials and supplies. As a matter of fact, on many of them they have more than doubled since 1915. In 1918, the cost per passenger per ride was 4.8 cents, without including enough for depreciation, without including anything for return on the investment. If you add 2.5 cents for return on the investment, you have a cost per passenger of 7.3 cents. That represents the conditions of about 35 or 40 leading roads in the country.

Mr. WARREN. In 1918?

Mr. ERICKSON. In 1918.

Commissioner SWEET. It is still worse now; is it not?

Mr. ERICKSON. It is still worse now, because prices have kept on increasing. Since that time, however, a few reliefs have been gotten through occasional increases in rates; so that the average rate now is slightly more than 5 cents, not a great deal more, but slightly more. At that time, it stood at about 5 cents per ride.

Mr. WARREN. But, as far as costs are concerned, conditions are a great deal worse?

Mr. ERICKSON. The costs are now higher than they were in 1918 by perhaps as much as 7 or 8 per cent.

Mr. WARREN. And that is regardless of this 60 cents an hour wage scale?

Mr. ERICKSON. Yes, sir.

Mr. WARREN. Which has been adopted in the case of a few companies?

Mr. ERICKSON. Since my figures were made, most of the increases in wages authorized by the Federal Labor Board have been put into effect—not all of them, but a great many of them—some of the

greatest ones, because my figures ended partly with July, 1918. For some of the 15 roads they were carried up to January 1, 1919.

Mr. WARREN. Those roads, you think, were fairly typical of the industry?

Mr. ERICKSON. They were fairly typical. They were located in Minnesota, Wisconsin, Illinois, Indiana, Ohio, and a great many in Massachusetts, many in New York, many in the South, some west of the Mississippi River, including Omaha, St. Louis, Kansas City, and many of the other leading cities in the country.

The CHAIRMAN. Do you include the lines of the Twin Cities and Milwaukee?

Mr. ERICKSON. Yes, sir; those were all included. Duluth, also—not Superior, but Duluth.

Commissioner SWEET. Are they strictly city service, or do they include interurbans?

Mr. ERICKSON. There is hardly a railroad in the country that does not have a suburban business besides the city business.

Commissioner SWEET. Yes.

Mr. ERICKSON. Almost every road; I suppose three-fourths of the lines go beyond the city limits into the suburbs and into adjoining towns and cities. Of course, they include the entire line, the city part as well as the suburban part. I did not have time to separate the figures by political units or divisions. They do not include inter-urban roads, however.

Commissioner SWEET. That is what I mean.

Mr. ERICKSON. They include urban and suburban roads.

Commissioner SWEET. Yes.

Mr. ERICKSON. In 1915 the roads were earning about half as much for returns as it was necessary to earn in order to secure capital, based upon market conditions. In 1919, or 1918, the roads were earning very little more than the operating expenses. Some roads were earning some more, but others less, and on the average not much more than perhaps a fraction of a cent, on the average, than the operating expenses.

Commissioner SWEET. Without allowing anything for depreciation or interest on investment?

Mr. ERICKSON. Without allowing any more for depreciation than was included in the accounts, which I would say was about half, but nothing on return whatever. Perhaps 35 per cent was included in the accounts for depreciation—not more than that—of what should be allowed.

Commissioner SWEET. Then, Mr. Erickson, the street railways of the country as a whole, taking these typical roads that you have examined, have in their physical properties been getting in worse and worse condition as time has progressed?

Mr. ERICKSON. Since 1910; yes. Their condition was bad from 1890 to 1900 because the industry was in its infancy, but it grew better up to 1900. It kept growing still better up to about 1908 and 1910. Then the situation was again reversed; and owing to the high prices of labor and material, and owing to the increases in the length of line, and owing to demands for better service which were made, it has been growing worse.

Commissioner SWEET. Are you speaking now of the financial condition?

Mr. ERICKSON. I am speaking of the financial condition exclusively.

Commissioner SWEET. What about their physical condition during this period?

Mr. ERICKSON. Their physical conditions have been fairly well kept up. They were until 1914 and 1915. The necessary improvements have been made since, of course. They have had to be made, but the full improvements have not been made since 1914 and 1915. They have skimmed wherever they could. That is the size of it. They have had to, and there are a great many deferred maintenance charges to be taken care of as soon as they get on their feet again.

Commissioner SWEET. If that process should have continued for several years, would it have had any bearing upon the question of the safety of the public?

Mr. ERICKSON. Yes; and the service would go to pieces. If it continues very much longer, you will have little or no service at all. It will go to pieces. The cars will be in such condition that they will not be safe. Power houses will not be able to furnish the necessary power for the driving of the cars.

Mr. WARREN. Did you mention the decrease in net earnings between 1910 and 1915, Mr. Erickson?

Mr. ERICKSON. Yes; I stated that the decrease at that time in net earnings amounted to about 33 per cent; in fact, nearly 34 per cent.

Mr. WARREN. And did you state the increase in the investment per revenue passenger?

Mr. ERICKSON. Showing the effect of the increase in the price of labor and material, and showing the effect of the unproductive improvements, from 1910 to 1915, I have a few figures here that I happened to get together on that question.

For instance, the investment per passenger ride, in 1910 or thereabouts, was about 20 cents. In 1915 it had increased to very nearly 28 cents, showing that the fixed charges per passenger have had to increase because you had more property per passenger to take care of. That is due to increases in prices. It is due to improvements demanded, but it did not bring in any proportionate amount of returns.

The cost of getting capital—

Mr. WARREN. Yes; I wish you would take that up and say something on the cost of capital.

Mr. ERICKSON. Yes; I will briefly state what we found.

Utilities before the war had to earn about 8 per cent on the full value of the physical property, including the going value, in order to attract the necessary capital. Bonds, for instance, if they bore 6 per cent, would not sell at par unless there was more property by a good deal behind them than their par value. And unless they were protected by net earnings that amounted to at least twice as much as the interest charges. Stocks were in the same position. They had to have property behind them. Six per cent stock had to sell at par. They had to have net earnings behind them that amounted to 10 or 12 or 14 per cent. If they did not have those earnings behind them, neither bonds nor stocks would sell at par; that is on, say, a 6 per cent basis.

That means this—that the cost of capital in the utility field is measured not by the income basis upon which the securities are selling, but the cost is measured by what you must have in the way of

net earnings behind the securities, in order that they may sell on a normal basis.

I investigated also from time to time, and particularly in 1914, 1915, and 1916, the income basis on which mortgages were selling, in some of our leading cities. A farm mortgage on a good farm, well located, could not cover more than one-half of a good farm, in order to sell on 6 per cent income basis. That may be likened to the bonds covering half of the property. A second farm mortgage, covering at least the investment, would not sell on a 6 per cent basis, unless they received 10 or 12 per cent as interest. In other words, the security was not good and demanded compensation for the risk. That may be likened to the stocks that come on top of the bonds.

The result was that the cost of money on a farm, up to the full value of the farm, was over 8 per cent on the full value, the same as the cost of money or capital in the public-utility field amounted to over 8 per cent.

Those investigations were carefully made, based upon thousands of illustrations, covering not only the income accounts and the value of the property, but upon their market price for five or six years. I had at least eight or nine men working on this investigation alone. I realized that the cost of capital in the utility and railroad field was measured by what you had to have in order to get capital, and I tried to ascertain that; and it is for that purpose that that investigation was carried on. The results that I gave you are in substance what I found. Of course they cover files of routine matter which I have not here, but which I have in my files in my Chicago office.

The CHAIRMAN. Did the data which you filed with the United States Chamber of Commerce contain the same details on that matter?

Mr. ERICKSON. The details are given fairly closely here in this brief statement that I will hand you, and also somewhat more fully in the statement made to the chamber of commerce, but more fully still in the report I made to the attorneys before the Newlands committee. I do not think those figures are available, but I will furnish you a more detailed summary, if you would want to have it.

The CHAIRMAN. I have the report of the Newlands committee.

Mr. ERICKSON. Oh, you have? Well, that is in that report. It covers in detail practically all of the leading railway systems, all the leading utilities and, besides that, I have a fairly full record of practically all the leading manufacturing industries. I have a detailed report covering 100 typewritten pages; and I should be glad to send you a copy of it if you would like to have it.

The CHAIRMAN. Thank you.

Mr. ERICKSON. I have not that here, though, but I have it in Chicago, and would be glad to forward it to you.

The CHAIRMAN. I think it would be useful, and we would appreciate it, if it is convenient for you.

Mr. ERICKSON. Yes; I will send it in to you.

The street-railway situation is such that something will have to be done, and it will have to be done, in my judgment, through the action of the State. Owing to regulation of utilities, the street railways themselves can not remedy the situation. They are powerless

to do what should be done. It can only be done by permission of the State and, in some cases, of the city authorities.

Now, that means that the State will have to take action; the regulating powers will have to take action. It means further that if the powers of the State commissions are not sufficient now they will have to be broadened out, and perhaps temporary assistance will have to be granted, subject to what may have to be done later on; but, in my judgment, it has to be done through the State commission or through the supervision of a State commission.

I was asked to say something on State versus local regulation. I have prepared something on that, and I suppose I can give you a synopsis of it. I can omit the details and refer to my notes, and give you what has been my experience in that matter while I was on the commission and afterwards. In doing so, in order to show the necessity of State regulation I, of course, have gone into details as to what is necessary in order to provide adequate service at reasonable rates, and perhaps I could as well omit that since it is in the report, anyway, and confine myself to comments.

Mr. WARREN. I should like to have the report, if that could go into the record, and have Mr. Erickson now cover some of the important points.

The CHAIRMAN. Whatever contribution Mr. Erickson makes to this subject is valuable.

Mr. WARREN. I expect so, and I feel it should be in the record.

The report of Mr. Erickson is as follows:

STREET RAILWAY SITUATION.

Electric street-railway transportation is of comparatively recent development.

In 1900 it comprised only 16 per cent of the track mileage and 7 per cent of the traffic.

In 1894, when long-distance transmission was more fully perfected, it began to develop very rapidly, and soon became the prevailing method of street railway transportation.

The financial situation of the street railways during the past 25 years has varied from doubtful up to fair and down again to doubtful or bad.

During the first part of this transition period much property had to be destroyed or discarded and replaced by new and different equipment. The investment grew faster than the earning. All this tended to keep investors away. About 1900 this had changed somewhat, and for some years the earnings grew somewhat faster than the investment. This had a strong tendency to draw capital into the street-railway field. Many of the underlying bonds even advanced into the investment class.

About 1910, however, the conditions again began to change in the opposite direction. Since about that time the investment and the operating expenses have increased faster than the earnings. At the outbreak of the war most roads were earning less than it was necessary to earn to attract all the new capital that was needed.

A close analysis of the income accounts and of the operating and other statistics of many leading street railways discloses some of the main reasons for the serious financial straits in which most of the electric street railways now find themselves.

From 1910 to 1915, owing to the fact that the operating expenses increased faster than the gross earnings, the net earnings declined about 33 per cent.

During this period, further, the investment per passenger advanced from nearly 20 cents to close to 28 cents. This increase of about 40 per cent in the investment per passenger is largely due to increases in prices of material and labor and to the fact that during this period many improvements in the service have been required, the cost of which has not been offset by increases in the density of traffic.

In 1914-15 the operating expenses alone, without including sufficient amounts for depreciation, averaged about 3.6 cents per passenger. During the same period, 8 per cent on the investment for interest and profits averaged about 2.5 cents per passenger. This made the total cost per passenger about 6.1 cents. The average rate of fare per passenger during this period averaged 5 cents or slightly less.

The principal reason why, for electric street railways, the expenses and charges have thus increased, is found in the increases that have taken place in prices of material and labor. From 1897 to 1915 the wholesale price on commodities increased about 50 per cent, while the prices on labor increased about 43 per cent.

The situation arising from such increases in the operating expenses and charges was also greatly aggravated by the fact the length of the haul increased and by the further fact that, as time went on, continually increasing demands for better and more comfortable service had to be met. Long hauls are more costly than short hauls and good service is more costly than poorer service. In the face of such increases in the cost of the service the number of passengers per car-mile decreased rather than increased. The rate of fare also remained the same as it was.

The facts just given apply mostly to conditions that existed for some time up to the beginning of war. Since the war started the conditions in the street-railway world have steadily grown worse. From 1914 to 1919 the prices on commodities and labor have about doubled, the length of the hauls have kept on increasing and so have the operating expenses and fixed charges. In the face of all this it is only recently that a few of the worst situated roads were reluctantly granted certain small increases in the rate of fare.

The operating expenses alone increased from 3.6 cents per passenger in 1914 to 4.8 cents per passenger in 1918. This is an increase of 1.2 cents, or about 33 per cent in the operating expenses per passenger. The cost of the capital has also increased. But if no allowance is made for this increase in the cost of the capital, and if it, therefore, is placed at the prewar figure of 2.5 cents per passenger, the total cost per passenger in 1918 was about 7.3 cents for each ride.

During the war the situation became, in fact, so bad that road after road had to be granted increases in rates in order that they would be able to keep up the service.

The conditions which created the bad situation before the war, and especially during the war, are still with us.

Prices of labor and material are not declining greatly, nor are they likely to fall much as long as our supply of money and credit remains as great as is now the case. Gold production is about as great as ever. During the war the imports of gold exceeded the exports by over one billion dollars. The available credit and asset currency supplies are twice as great now as before the war.

It is true that these increases in the prices of materials and labor applies to other industries as well as to street railways and other public utilities. Here, however, the resemblance ends. Public utilities, like other industries, have not often been able to meet increasing costs on what they buy by increases in the prices on what they sell.

Public utilities have to buy all the capital, material, supplies and labor which they use in the open competitive market. But the prices on the service which these utilities sell is subject to regulation. Their prices are fixed by the government. In many cases, these prices are the same now as before the war.

When all the facts are considered it will be found that at present and for several years in the past the street railways have not, as a rule, been earning a fair living.

They have had to pay the ruling wage. They have also had to meet the most urgent repairs and renewals, but few roads have been able to keep up their equipment as well as they would have done had the earnings been adequate. Few, if any, roads have beside these and other necessary outlays been able to earn fair returns on the investment.

It is often said that low prices increase the sales and that the cost per unit of service decreases as the volume of business increases. It is further said that this applies with special force in the street railway field, because in this field only a part of the expenses tend to vary with variations in the amount of business done.

It is true that the law of increasing returns or decreasing cost applies to the street-railway traffic the same as it does to other industries where relatively large investments are required. But this law while important is subject to many qualifications. In such industries the fixed charges and other

costs per unit of service are rapidly increasing as long as the investment remains the same. But when the capacity of the existing equipment is reached and when additional investments are needed for handling the growing traffic, then it is usually found that the cost of the additional equipment is out of proportion to the amount of traffic that can be had. The amount of traffic, for instance, that has grown too great for one track is not often even nearly large enough for the full use of two tracks. Yet the second track has to be put in; and it is also well known that two tracks cost nearly twice as much as one track. When the second track has been put in, the interest charges per unit of service become much greater than they were while only one track was used. This increase in the interest charges per unit is also likely to become permanent even after the traffic has so grown as to fully utilize both tracks, for it is well known that double-track lines do not or can not as a rule handle twice as much traffic as single-track lines.

Troubles of this nature have greatly aggravated transportation conditions in this country during the past decade. While there was too much traffic for the existing facilities, there was not enough traffic to equally fully occupy the facilities after they had been extended. New extensions must always be somewhat out of proportion to the amount of business that is immediately available.

Adequate street-car service is a necessity. Without it no city of any considerable size can possibly grow and prosper. Good street-car service, however, can not in the long run be had unless the earnings are high enough to bring the necessary capital into the street-railway field. When the choice lies between good service at reasonable rates, on the one hand, and poor service at too low rates on the other, it is to the best interest of all that the former should be preferred.

A living wage in any industry consists of earnings that are high enough to attract all the capital and all other factors of production that are required in the business.

In the street-railway and public-utility fields this means that under normal conditions the earnings must be high enough to yield reasonable returns for the operating expenses including taxes, depreciation, and interest and profit on the fair value of the plant and the business. Reasonable returns are represented by fair prices of all the labor, services, materials, supplies, and other things that are needed, as well as by fair prices for the capital employed and for the enterpriser or employer.

For several years up to the time of the war such reasonable returns were ordinarily covered by earnings that were high enough to meet all other expenses and charges and leave a balance of about 8 per cent on the fair value of the plant and the business for interest and profits thereon.

During the war the cost of the factors of production including the capital was as stated greatly increased, and these costs still remain at high levels. It is possible, however, that during the near few years there will be some fall in the cost of investment capital, although it is doubtful whether for many years this cost will fall as low as to the prewar point.

The conditions upon which capital can be had or securities sold are about as follows:

The property and earnings behind the investment must be sufficient to afford the necessary protection against risks, and to also constitute adequate compensation for the use of capital employed, and for the work and responsibilities assumed by the employer and investor.

Investments in bonds, in order to be safe, must have behind them much more property than their par value, and much greater net earnings than the interest charges on the bonds.

Stocks, in order to be fairly safe or to come in the investment class, must have behind them at least as much property as their par value, and much greater net earnings than the ordinary 6 per cent of 7 per cent dividends that may be paid thereon.

Without such margins of safety as these, the securities are speculative rather than investment propositions.

The fact that investment securities must be protected by more property than their par value and by much greater net earnings than the ordinary interest and dividend charges shows:

1. That the cost of capital is represented by the amount of the net earnings that are required in order that the securities thus representing the capital may sell on the ordinary investment or income basis, and

2. That the rates charged by a utility for the service it furnishes must in the long run be high enough to yield such net earnings.

The investment conditions in these respects, which prevailed for several years prior to the war, may be further summarized as follows:

Investors, in order to purchase $5\frac{1}{2}$ per cent to $6\frac{1}{2}$ per cent bonds at par, required among other things:

1. That such bonds should not amount to more than about two-thirds of the value of the assets behind them.

2. That the net earnings of the issuing company should amount to not less than twice as much as the interest charges on such bonds.

3. That the past record and future prospects of the utility should be good or at least very fair.

4. That, in taking the securities on such income bases as those given, the investors would not assume the cost of such discount, commissions, and other selling and issuing expense as had to be met when the securities were first put on the market.

Such bonds as these represent for the most part the class of investment bonds which were available for new capital at the time.

The comparatively few available underlying issues which were better protected than this were selling at somewhat higher prices and lower yields.

The many junior issues bearing the same rates of interest but which were less well protected than this were selling at lower prices, and higher yields or often much below par.

Investors in order to purchase 6 per cent to 7 per cent stocks at about par at that time required:

1. That the par value of such stocks should not amount to more, or as much as, the amount by which the value of the assets exceeded the par value of the bonds which come ahead of such stocks.

2. That the net earnings of the company which were available for returns or dividends on such stocks should amount to from more than half again to fully twice as much as the regular dividends.

3. That in addition to this the amount by which the net earnings for the stock exceeded the regular dividends be used for strengthening the equities behind the stock and for occasional extra dividends thereon.

4. That the future prospects of the company appear to be good or at least fair.

In taking the stock on these bases the investor did not assume the cost of discounts, commissions, or other selling expenses.

Less well-protected stocks than this bearing the same rates of dividends sold at lower prices and higher yields or below par. Better protected stocks with similar dividend rates sold at higher prices and lower yields, or sometimes above par.

When both bonds and stocks are outstanding, the bonds are, of course, much safer than the stocks. Among the reasons for this are that bonds have the first claim on the entire property and on the entire net earnings; that all just claims of the bondholder must be satisfied before the stockholder gets anything; that the bonds have foreclosure privileges when the interest charges thereon are not paid.

The facts thus given represented normal investment conditions in the utility field for the period involved. For a plant earning 8 per cent on its fair value, of which 60 per cent was represented by bonds, and 40 per cent by stocks, the situation was as follows:

	Assets.	Rate. earned.	Rate. paid.	Interest dividends.	Par price.
		<i>Per cent.</i>	<i>Per cent.</i>		
Bonds.....	\$60,000	13.3	6.0	\$3,600	\$100
Stock.....	40,000	11.1	11.1	4,400	100
Total.....	100,000	8.0	8.0	8,000	100

Farm mortgages bearing interest at from $5\frac{1}{2}$ to $6\frac{1}{2}$ per cent will not often sell for as much as par if they amount to more than one-half as much as the value of the farm, and if the farm is not well located and well managed.

Second farm mortgages, covering the remaining half of the value of the farm, will not sell at par unless the interest received thereon amounts to from 10 per cent to 12 per cent.

First mortgages of this kind on farms resemble the bonds which were, say, one-half the value of a utility.

Second farm mortgages of the kind mentioned resemble the second-mortgage bonds or even stock, which cover the remaining half of the value of a utility plant.

The cost of obtaining capital in the public utility for several years up to the beginning of the war may be further illustrated.

Twelve representatives 20 to 30 year first-mortgage bond issues covering gas, electric, and street-railway plants brought out before the war and bearing interest at the rate of 5 per cent were placed on the market at prices under which they yielded the investors from something over 5½ per cent to more than 6 per cent. The cost to the issuing companies, when discounts, commissions, and other expenses averaging about 7 per cent are included, amounted to about 6½ per cent. These issues did not cover more than about one-half of the book values of the property and were protected by net earnings that averaged considerably more than twice as much as the amounts required for interest on the bonds.

During the same period fifteen 25 to 30 year representative second-mortgage bonds covering similar properties bearing rates at 5 and 6 per cent were offered at prices which would net investors about 6.7 per cent. On these bonds the discounts and selling expenses amount to about 8 per cent on the par value of the bonds. These costs when pro rated on the life of the bonds brought the cost of the capital to the utilities up to over 7 per cent. These issues were protected by half again as much property as their par value and by net earnings that amounted to about twice as much as the interest charges.

The situation with respect to older issues is about as follows: A group of twenty-seven 5 per cent first-mortgage bonds, most of which are underlying liens upon the whole property and all of which are underlying liens upon at least a part of the property, were taken in the 1916 markets by investors at prices upon which the approximate yield was 5½ per cent. There was outstanding about \$170,000,000 of these securities, back of which stood a book value of nearly \$420,000,000. It is clearly indicated by these figures that these issues cover much less than one-half of the book value of these properties. Net earnings available for these issues amounted to over \$27,500,000, of which sum only \$10,320,000 was absorbed by interest and sinking-fund charges, leaving an excess for safety of \$17,180,000. Interest charges on these bonds were thus earned 2.7 times over, and the margin of safety was 63 per cent.

A small group of long-term 4 per cent bonds whose security is rated highly were similarly demanded by investors at a price to yield approximately 5.09 per cent. The average income available annually for the past five years was three times the interest requirements.

Another group of about 40 utility bond issues, protected on the average by not far from twice as much property and earnings as the face value of the bonds and interest charges thereon, have sold at prices on which the yield averaged over 6 per cent. The cost to the utilities, however, when all discounts, commissions, outlays, and deductions of about 8 per cent are included, increased this figure considerably, or to about 7 per cent.

A group of 11 collateral trust securities, 8 bearing 5 per cent interest, 2 bearing 4 per cent, were issued to the extent of nearly \$120,000,000. The security of these issues is rated high by Moody. These issues yield approximately 5.84 per cent on an average price, and the interest is covered three times by the income available on a five-year average basis.

A great many five-year note issues have of late years been offered at prices which would yield investors from 6 per cent to 7.5 per cent. In many of these cases the issues bear interest at 6 per cent. The discounts and other expenses amounting to about 10 per cent make the cost to the utilities in practically all cases more than 8½ per cent per annum. Many such note issues were undertaken for the purpose of postponing comprehensive refinancing plans to a time when long-time securities would find a market, and when it is expected that the money market will be easier so that permanent long-time mortgages or bonds could be offered at a less financial sacrifice.

Several preferred stocks protected by ample assets and by net earnings amounting to from 10 per cent to 30 per cent thereon have sold at prices on which they yielded from a little less than 7 per cent to about 8 per cent. With discounts and other expenses the capital obtained on these issues cost the utilities at least 1 per cent more than this. Twenty-nine preferred stocks

amounting to about \$170,000,000, protected by earnings that amounted to 2½ times the ordinary direct dividend charges sold on a 7 per cent to an 8 per cent income basis.

The public-utility securities which have thus far been discussed belong in large part to these large utilities which are fairly well known and for whose securities there is a fairly well developed market. They represent the leading listed and unlisted securities in all stock exchanges and prominent markets upon which reliable data can be secured. They are mainly of an active class, although some are included which, though somewhat active, are of proven worth.

All of these facts clearly show that for several years up to the earlier years of the war the utilities, as has been stated, could not obtain all the capital they needed on normal terms and conditions unless the net earnings for returns on the investment amounted to at least 8 per cent on the fair value of the plant and the business.

These facts show further that during the same years the net earnings for returns did not on the average amount to much more than about half of this or to only about 4 per cent.

It is further disclosed that the unsatisfactory conditions in which the street railways found themselves at the beginning of the war have steadily grown worse since then. During the past two years they have earned but little more than enough to cover the operating expenses.

It is clear to all that this is a situation that can not last. No one will continue to render service at a loss. Unless the street railways are allowed to earn reasonable returns, the service is certain to become so bad as to be unbearable. The choice therefore lies between good service at reasonable rates and poor service that is gradually growing worse at the existing rates. As good street-car service is indispensable in all growing cities the choice is plain.

As the street railways are subject to government regulation and have but little control over the growing costs of operation, they are themselves utterly unable to remedy the situation without the active and comprehensive assistance from the regulating commissions or bodies. Such assistance is not easily obtained. Some of the principal reasons for this are found in the attitude of the city authorities in these matters, and in the conflicting powers and other relations that often exist as between the State commissions and the local authorities. It is highly important that these obstacles be removed and that full power to deal with the situation be placed in the hands of whatever body or commissions which from every point of view is in the best position to most promptly, most fairly, and most effectively straighten out the situation. If State regulation through utility commissions is the best agency for this purpose, this is also the means that should be adopted. If local regulation is a better medium than this should be chosen. In order to shed some light on these matters these two methods of regulation will be discussed at some length.

STATE VERSUS LOCAL REGULATION.

The power to regulate service, prices, and other conditions is vested in the State and not in the municipality or in any subdivision of the State. Such State regulation may take the form of specific legislation to be enforced, if need be, either through the regularly established legal machinery or through such administrative bodies as the railroad and public-utility commissions. The State may also delegate such regulation to any of the local units of which the State is made up, such as cities, etc. When the regulation of public utilities is delegated to the local units it is usually carried out through franchise and ordinary provisions mostly without any regular department for administering such regulation.

The purpose of the regulation of public utilities is mostly to see to it that such utilities furnish adequate service at reasonable rates, and that excessive amounts of securities are not issued by them.

While it is generally admitted that such regulation of public utilities is necessary in public interest, there are differences of opinion as to what form of regulation is preferable or best from this point of view. Some prefer regulation through State legislation and commission; others hold that such regulation should be delegated or intrusted to the municipality actually served by the utility.

The purpose herein is to present a few facts which may throw some light upon whether State or local regulation is the best or most advantageous from the

point of view of public interest. To this end the nature of regulation, and the kind of work that is required in properly administering it will be briefly outlined. The past experience under the two methods of regulation and other facts and conditions will also be touched upon.

The service, in order to be adequate, must, as a rule, conform to certain standards which have been developed from experience and which are subject to change with changes in the conditions.

In the street-railway service the tracks must be safe and well maintained. They must also be located on the streets where most needed and extended from time to time with the growth of the city. Other street-railway equipment must be up to date and well kept up with respect to both the safety and the comfort of the public. Cars must be run as often as necessary to accommodate the traffic. The routing, loading, and headway of cars as a whole as well as at different times of the day, are matters that can not be safely passed upon without elaborate traffic and other studies or investigations.

The gas used for cooking, lighting, and heating must have the proper heating value or qualities, be comparatively free from sulphur, and be delivered under proper pressure. The meters by which the gas is measured, in order to be accurate, must also be tested at frequent intervals.

In the case of electric utilities the voltage must be comparatively constant, the meters frequently tested and the lamps renewed whenever necessary. The equipment generally must also be well kept up and provided with many necessary safety devices.

The telephone equipment must be adequate, up to date, and well kept up. The operators must be competent and numerous enough for good service. Telephone companies must also be made to keep pace with the progress in the art and with the growth of the community served.

Waterworks must have sufficient pressure for both fire and domestic service. The water must be pure and the meters accurate. The supply of water must also be adequate. The mains must be properly extended and the equipment up to date and well maintained.

All of the requirements for good service which have thus been outlined and a great many other requirements to that end as well, must be determined by exhaustive and careful investigations, developed into proper rules and standards and then carefully explained to all concerned. When these service rules and standards are put into effect they must also be enforced by competent inspectors, aided by proper recording and other scientific instruments. To develop and promulgate such standards and rules and to properly enforce them when put in effect requires technical training and experience.

Service standards and rules of this kind vary with the size of the city, the state of the art, and with other conditions. The standards required for good service must be much more comprehensive and much more or carefully enforced for the larger cities than for the smaller ones. The standards and rules thus required at one stage in the progress of the industry are often out of place when the next stage is ushered in. As the cities keep on growing and as new inventions and new methods are constantly appearing, it also follows that the standards of service must be almost constantly modified or changed. In the State where I happened to be connected with this work, many rules, for such reasons as those given, had to be changed by the end of the second year after their adoption. These changes tend to considerably increase the work and difficulties involved in keeping up and enforcing good service.

In order to determine what constitutes reasonable rates or charges for utility service, it is, among other things, necessary to determine the fair value of the plant and its business, what constitute reasonable returns for interest and depreciation thereon, as well as what constitutes fair allowances for the rest of the operating expenses and charges, and many other facts.

Among the facts and evidence that must be obtained and considered in determining the fair value of the plant is the original cost and the cost of reproduction of the so-called physical property, and the amount of depreciation that has accrued therein. The fair value of the business of the plant is usually determined from the original cost of developing the same as well as from the estimated cost of reproducing the business at the time of the appraisal. In addition to this there are also many other facts and conditions that must be given consideration.

In order to ascertain the original investment in the plant and the original cost of developing its business, engineering and accounting analysis of the property and books of the plant are necessary. Investment outlays must be

separated from renewals and repair items. Information must be obtained as to what the prices of labor and material were at the time the different units were put into the plant. In fact, all investment and operating accounts must be carefully examined and analyzed as well as measured in the light of what is reasonable under the circumstances.

The work of ascertaining the cost of reproduction and the amount of depreciation that has accrued in the physical property requires complete inventories of the property, and careful pricing of each part or item thereof, as well as full data as to the age, service life, and actual condition of such property. To this end further complete price lists of all elements of cost and detailed inspection of the property as well as full information as to the character of its use and upkeep and as to the state of the art are also needed.

In order to determine the original cost of developing the business of the plant and the probable cost of reproducing the same under existing conditions, much information and many facts are necessary. The financial history of the company as disclosed by its books and records and in other ways must be known. This is also true of what constitutes reasonable allowances for the operating expenses and charges including interest and profits on the investment at the different stages during the development of the business. Facts must also be had which show how long it would take to reproduce the plant and the business at the time of the appraisal, and what would be the relation between the expenses and the earnings at each stage during the time required for the reproduction of the business, and numerous other facts and conditions.

In order to know what are reasonable amounts for the operating expenses including depreciation and returns for interest and profits on the investment a great deal of information is needed. Statistics showing the cost of operation of different plants under varying conditions; familiarity with operating conditions and equipment, experience with or a thorough understanding of operating methods and practices enables one to properly pass upon the operating expenses. Information as to the cost and probable service life of the depreciable property, the nature of its use and upkeep, and the state of the art places one in position to say how much should be set aside annually for the renewal of worn-out or discarded property. Knowledge of financial, industrial, and investment conditions and of the general trend of events enables one to estimate the amounts, or rates, or prices at which capital and the enterprise can be had.

When the total cost of the service has thus been ascertained and adjusted to probable future conditions, it is necessary to so apportion the various items of which this total is made up that proper costs per unit of service for each class of customer can be obtained and equitable rate schedules built up.

In order that the facts be deduced to pass upon the cost value of the plants and their business and the cost of the service performed may be available, it is necessary that the accounts and records kept by the utilities be as complete and correct as well as uniform throughout the State. It is further necessary that such accounts and records should be regularly audited and inspected. Without proper groupings of the different expense items the total cost can not be properly apportioned between the different branches and classes of the service. Without uniformity in such groupings the figures for different plants can not be fairly or accurately compared. Without audits irregularities of one kind or another are certain to creep into the results. Until uniform and correct classifications of accounts are made effective, those are few who so group their expenses and charges that they become safe basis for rates for the service.

The conditions which affect the charges for the service, like the conditions which affect the quality of the service, are almost constantly changing. Changes in prices of material and labor affect the value of the plant as well as the cost to it of furnishing the service. The cost per unit of the service may also be greatly affected by changes in the volume of the business. New inventions, the adoption of new methods, and variations in municipal and other requirements may also lead to similar results. Competitive and commercial conditions also play their part in affecting the rates; and this is even true of the different seasons of the year.

Much of the information that is needed in rate making is also required in connection with new security issues. When new securities are issued in order to provide for new extensions, it is necessary to correctly estimate in advance the cost of such extensions. In this connection, further correct estimates of the effect upon the earnings and the operating expenses of such

additions to the property or plant are also necessary. If the extension is not in line with public policy it should not be built. All this requires much knowledge, a wide experience and some judgment. This is also true of the work involved in fixing all other conditions and terms that are connected with security issues.

Experience has taught us that the problems of regulation are so complex in their nature, so far-reaching in their effect, so persistent in their tendencies that they can not be successfully handled by any but the strongest and best-equipped commissions. Such commissions should be backed up by comprehensive laws and strong government as well as by adequate appropriation for the employment of the necessary engineering, accounting, statistical, and other expert services, and for the inspection of the service and other conditions and practices. Less well-equipped departments than this will not be able to properly cope with this work. Poorly equipped departments may cause more harm than good. For lacking the necessary information, their orders are likely to go either too far or else not far enough, and in these and other ways seriously disturb many sensitive industrial and commercial relations.

It is apparent from what has been said that the work of regulation is by no means a simple task. To promulgate and administer proper rules or standards of service, and reasonable rates which are not unjustly discriminatory, should be the task of technically-trained men of wide experience. It is work that requires detailed information and a full understanding of the physical parts and condition of the plant, and of both local and general industrial and financial conditions. It requires familiarity with operating matters and the progress of the industry. It requires familiarity with values, the cost of the service, both as a whole and per unit, for the entire plant as well as for each class of its customers. It requires scientifically kept accounts and records, uniform for the state and even for the country. It requires knowledge as to the conditions and terms upon which each factor of production can be had and the probable future tendencies of these terms. It requires much other information that can only be acquired through special facilities, preparation, and long experience. The need for all this is not limited as to time, but is constant. It must be available when the work of regulation first begins. It is needed for the readjustments that are necessary with each of the changes in conditions that take place so frequently, especially in growing industries. Much of it is also required for inspection and for other administrative work.

This work can also be carried on much more cheaply and much more effectively on a large scale by the State than on small scales by each local unit or city. The State can employ service experts, appraisers, accountants, statisticians and other assistants at moderate salaries and keep them constantly employed. None but the largest cities can very well do or afford this. Most of the cities can not even afford, or feel they can not afford, even occasional service of such experts. The State has broad powers and wide jurisdiction. The information it obtains covers large areas and many plants, and so does the uniform practices and rules which it puts into effect and enforces. Its powers are State wide. The activities of the city, on the other hand, can not extend beyond the city limits. Its powers therefore are limited, the information it can obtain is restricted, and so are the rules it can put into effect and enforce. It is in its very nature debarred from doing and seeking most of those things which are essential to effective regulation, economically administered.

State public-service commissions are usually equipped with well-equipped assistants. They develop, prescribe, and put into effect proper standards and rules of service, and through regular inspections see to it that these standards are lived up to. They are constantly engaged in investigating the prices of construction material, operating supplies, labor and other services. They inquire into the cost of capital and the enterprise as well as into the cost of the service, both as a whole, and by classes of customers. In appraising the plant and its business they examine the books, records, and other sources for evidence as to the original cost of the same. They cause the property and other elements to be carefully inventoried and priced in order to determine the cost of reproduction of the same such property and business. For the purpose of determining the questions connected with the depreciation of the property, they obtain full data as to the cost, age, condition, service life, the state of upkeep and other facts of the property involved. They audit the earnings and operating expenses of the plant and see to it that the uniform accounting systems which they have prescribed are adhered to. They study general and local condi-

tions, operating methods, construction projects, and other facts and practices. The facts thus gathered and the knowledge thus obtained become the basis upon which the work of regulation is carried on.

Under local regulation such work is not often carried on. It is mostly regarded as too costly. For all but perhaps the very largest cities this is also true. Franchise and ordinance provisions alone do not mean much. They are either out of date and unenforceable soon after enacted, or the means for enforcing them are lacking. Legislation, in order to be of value, must be practical as well as enforced. Franchises run for long periods of years. The regulating provisions therein, even if proper at the time the franchise is enacted, are usually out of date in a year or two thereafter. Even when these provisions are subject to revision from time to time the situation is not greatly improved. For it is usually found that such revisions are neither as frequent as is necessary, nor properly made when it is attempted to make them. Local regulation therefore mostly means no regulation.

That legislation alone, without proper supervision and enforcement, will not accomplish all that is needed in the way of regulation is fully shown by experience. When the need for railway regulation first appeared, the States tried to meet this demand by direction legislation without provisions for the enforcement of these laws. The results were far from satisfactory. It was soon discovered that the laws could not be made flexible enough to meet every changing condition. It was also found that these laws, even when just, would not be lived up to unless enforced through inspection. These and other conditions ultimately led to the establishment of fully-equipped railroad commissions.

This experience has also been repeated in the rest of the utility field outside of the steam railways. When the need for regulation of municipal utilities was first felt, the State usually delegated the power of such regulation to the municipality. These units in turn attempted to bring about better conditions through franchise and ordinance provisions without adequate provisions for their enforcement. These efforts fell short of their purpose. When the question of adequate regulation and its proper enforcement was fully inquired into it was found to be too costly and too complicated to be undertaken by single municipalities. As the situation grew worse it finally came to such a pass that the State had to step in and take full charge. The State then did in the municipal utility field what it had already done in the railway field. It enacted proper utility laws and provided for their administration and enforcement through State utility commissions.

The failure of franchise or local regulation is not only shown by the causes which led to the establishment of State commissions, but it is further emphasized by the conditions which the State commissions found when they took hold of the work. When the State commissions thus took hold, the standards of service, if any such standards existed at all, were mostly either bad or out of date. The service itself was usually bad either as a whole or in spots. It would have been much worse than it was had the standards and rules laid down been complied with. The rates were in the same fix. They were seldom adjusted upon any scientific basis. Unjust discriminations were often encouraged, if not demanded by the cities themselves. Favored customers received either free or reduced rates.

The cities as such often paid nothing, or else much less than they should pay, for such street-railway, water, light, power, and phone service as they used, thus throwing an undue burden upon the rest of the customers. Little or no efforts were made by the city toward having such rates established as would tend to develop the service and reduce its cost. The result was that the rates in effect were often such as to retard rather than promote proper business developments.

State regulation is not perfect—no human institution is. State commissions have made mistakes. In their work they have often gone too far in construing every doubtful point in favor of the public. They have often misjudged or failed to give sufficient weight to the long-continued upward tendency in the prices of both material and labor. The result is that many of their orders have been unjust and have bordered upon confiscation. There have also been mistakes the other way. For it is no doubt possible to pick out orders in which the commissions may have been more liberal to the utility than to the public. Occasional shortcomings of this kind, however, must be expected. On the whole, State regulation has been much fairer and much more equitable than local regulation. This conclusion is so well sustained by experience and public records that further details here are superfluous.

But the heavy cost and lack of requisite facilities and the other shortcomings that have thus been mentioned are not the only obstacles in the way of effective and fair local regulation. There are also important questions of jurisdiction to be considered. Cities and other units have no jurisdiction beyond their boundaries. One city can not interfere with conditions in another city or unit, even when they adjoin each other and are served by the same utilities.

Utilities, on the other hand, often operate in more than one municipality. In nearly all cities many of the street-car lines extend beyond the city limits into the suburbs, villages or towns. Interurban lines operate over the tracks of urban and suburban lines and handle business thereon. Over 90 per cent of the telephone companies and not far from one-half of the gas and water plants serve more than one local unit. Electric transmission lines fed by hydraulic and other electric-power stations extend all over most of the States and serve from one to as many as 50 or more communities.

As local units have nothing to say beyond their boundaries, many utilities would have to be regulated by as many bodies as the units they serve if the local principle of control should be carried out. This would obviously be so impracticable that even the most ardent supporters of local control shrink from advocating it.

A State commission, on the other hand, not only has the necessary jurisdiction over each of the units served, but it is in position to view the situation in a much broader light, and is better equipped for such regulation from every other point of view than local units.

Regulating bodies representing the smaller units are also much more likely to be influenced in their work by political considerations than is the case with commissions which represent the entire State. The first and principal duty of a regulating body is to do equal justice to all without special favors to anyone. This principle is sound. But it is not always in harmony with the interest of politicians or political groups and factions. Servility to political interests is as bad as servility to financial or other special interests. Few decisions are likely to be sound that are based on political considerations. It is the duty of the State to do its best to keep undue influences away from the commissions; and this is much more easily accomplished under State than under local systems of regulation. If the principle is sound that only such duties should be delegated to the local unit as such unit can do better than the State, then it is also clear that the regulation of utilities is a function that should not be delegated to local units.

The local units do not often use their power of such regulation even when they have it. This is well illustrated in Wisconsin where in the premises the locality has about as much power in such matters as the State commission. In this State, in the face of this, the cities or units themselves seldom endeavor to make any use of this power. Whenever they have occasion to complain of company utility practice they usually bring their case to the State commission. Whether this course is taken because it is felt that the State commission, which is fully equipped for such work and much more free from local prejudices, can best straighten out the trouble, or whether it is done merely in order to avoid work and expense is not always disclosed. The chances are that when actually faced with complicated and laborious work involved the local authorities do not find it to their liking and hence prefer to shift it to the State commission. Many local authorities take this course, even at the very time they are actively engaged in denouncing State interference in what they choose to call local questions.

It is often said that the regulation of municipal utilities through a State commission is undemocratic and deprives the people of power which is theirs by right. This charge is baseless. All power of government, and consequently of regulation, is vested in the State. The city is simply a creature of the State, given certain powers for the purpose of aiding the State in its functions. The duty to regulate rests in the State and must be carried out through the State legislature. This legislature may delegate this duty to either the city council or to a State commission. It will so delegate it to the one of these two bodies that is expected to give the best service and render the most assistance. If regulation is delegated to or carried out through a State commission, this course is taken because this method has been found to be the best. Can anyone truthfully say that a city council is more democratic than a State legislature? Both are elected by the people and responsible for their acts to the people.

In thus considering the source and nature of regulation, the character and scope of the work involved therein, the cost of properly administering it, the

equipment that is necessary to that end, the jurisdiction required, past experience in these matters, and other conditions, the conclusion would seem inevitable that from the point of view of public interest State regulation is better and more advantageous than local control.

It has been found that for several years prior to the earlier years of the war, owing to increasing cost of operation, to increasing length of the hauls, and to improvements in the service, the net earnings in the street-railway field had been gradually declining until, on the whole, they did not amount to more than about one-half as much as the cost at which the capital could be had; that the situation since that time has been rapidly growing worse until it has reached a point where these roads were not earning much more than the operating expenses; that since these conditions have only been partially relieved through increases in rates or otherwise, the electric street-railway situation is now such that public interest demands that drastic measures be adopted or steps taken that will place these roads in such a financial position that they can obtain such capital as they need on normal terms and be placed in position to continue to render good service; that because they are subject to regulation, the existing situation can not be remedied by the roads themselves without active and comprehensive assistance from the government itself through its regulating agencies; that because of the nature of such regulation and of the character of work involved therein and because of many other conditions, the best fitted for this important work is the State public-utility commission.

Assuming that the utility commissions have or are given all the power and all the facilities that are necessary in order to straighten out the street-railway situation, the question immediately arises as to just how to proceed in this work. Several courses may suggest themselves. They may adhere to the usual practice in rate cases, and proceed to investigate the service and determine its needs; to determine the value of the plant and its business; what constitutes reasonable allowances for the operating expenses, including depreciation and interest and profits on the fair value of the plant and the business; to determine whether a flat or uniform rate or whether zone rates will best meet the situation; to investigate all other facts and conditions that are involved in the situation or have a closer bearing upon it. When this work has been completed it should put into effect and enforce such rates as are reasonable under the circumstances, and which, under normal conditions and for adequate service, are high enough to encourage the necessary capital and other factors of production to come into the electric-railway field. The rate fixed in this way would just about cover the cost of the service. It would, in fact, be a service-at-cost rate. Rates which are higher than necessary to obtain the capital and other factors of production are, in fact, the lowest service-at-cost rates at which, in the long run, the service can be had.

While this is the usual way in which the commissions proceed in rate cases, and in which service-at-cost rates are established, the work involved therein is so comprehensive as to require more time than can always be safely allowed for this purpose. This is especially true of such readjustments in the rates once established in above manner which becomes necessary, because of the changes that take place in the cost of the service and in other conditions. In order to avoid such delays, the order of the commission might go far enough to provide for a so-called sliding scale of rates, which rates would automatically change with changes in the cost of the service. When the operating expenses increased so as to leave less for depreciation and interest than the amount determined upon, the rates would go up. When the operating expenses fell so as to leave more for depreciation and interest than the amounts determined upon for these purposes, the rates would move downward.

Such rates would be true cost-of-service rates. The rates first established in this manner would cover the cost of the service as it stood at the time. These rates would remain unchanged as long as they yielded the prescribed returns. They would automatically rise when the cost increased and the net earnings for returns declined below the prescribed level. They would automatically fall when the cost of operation fell and the net earnings rose above the prescribed level. Such rates, if fairly applied, would automatically and fairly meet all necessary changes in the cost of operation, whether these changes were brought about by changes in the prices of labor and material or by additions to the plant and the amount of business obtained from new extensions of the lines. Such an arrangement further would relieve the commissions from at least a part of the work, controversies, and other complications that are certain to arise in connection with all rate changes that are made under prevailing methods.

It would operate promptly as well as automatically and would therefore prevent many unjust and embarrassing delays. Through proper examinations and supervisions of the accounts, records, and other practices, such sliding-scale service-at-cost-rate arrangements can also be equitably applied without any material increases in the cost of regulation.

The additional amount of work involved in so extending and broadening the orders of the commission that, besides provisions for a service-at-cost rate to apply under existing conditions, these orders would also provide for such sliding scales of rates as those outlined is not great. This extra work would largely consist of determining how much the rates should be changed with changes in the cost. Under zone rates and ticket systems, this extra work would also have to be extended so as to cover the form of the rate schedules or the proportion in which each specific rate or part of a rate should be effected by the change in the cost. This extra work might also have to include a somewhat closer supervision over the accounts and records of the plants, and over certain other practices and rules than would otherwise be necessary. Such work as this, however, the commissions are already equipped for doing.

All other questions involved in rate making, such as the valuation of the plant and its business; the determination of what constitutes fair allowances for the operating expenses, including depreciation and the returns upon such valuation; the cost, as a whole and per unit, for each branch and class of service; the forms of rates under which the varying cost can best be met, and under which the service can best be expanded, are about the same in all rate investigations. Owing to the experience obtained under regulation the work of determining such values, costs including returns, and rates is also well understood, and so are the conditions and facts upon which such values, costs and rates are founded. There is no part of the work involved in developing, applying and operating such sliding rate schedules as those outlined above that can not be safely entrusted to the State commission. In fact, such State commissions, through experience in such matters and because of their facilities for dealing with them, are not only the best equipped but the most logical bodies for promulgating such rates, and for supervising of their operation.

Whenever this is deemed advisable, service-at-cost arrangements, in which such sliding scale provisions as those outlined above are embodied, can also be so extended that the cities themselves become parties thereto. Under the supervision of the State commissions, the city and the company can enter into a contract in which rates are agreed upon that will yield such amounts for the operating expenses and for depreciation and interest upon the fair value of the plant and the business as are necessary to attract all the factors of production, including capital; that in order that the amounts or rates for depreciation and returns agreed upon may be maintained, will automatically rise and fall with rises and falls in the operating expenses. Under such agreements, such questions as the value of the plant and the business; the cost of the operations; the rates to be allowed for depreciation and interest on a fair valuation; the specific rates to be put into effect; the relation between the changes in these rates and changes in the cost; the form of the rate schedules, and other facts, can be determined either by the State commission alone or jointly by the State commission, the city and the company. Under such agreements the city is expressly made one of the parties to both the service-at-cost-rate schedules and the sliding-scale arrangements therein. Whether this would be of any advantage depends very largely upon the attitude of the city. Where the city authorities desire to take a hand in the making of such contract and to become direct parties of the same it may be a plan that is worth trying.

It is obvious that service-at-cost rates of this kind which embody sliding-scale provisions such as those outlined may offer many advantages. Such arrangements, if carefully entered into and strictly complied with, would greatly reduce the risks involved in the business and would therefore also tend to lower the cost at which capital can be had. When once fully understood and entered into, it is also likely that such agreements would be more cheerfully complied with than is the case with agreements and orders in which sliding-scale provisions of this kind are not included.

Mr. ERICKSON. The power to regulate is vested in the State. It is inherent in the State. It may be delegated by the State either to a State commission, or it may be delegated to a local unit, but it is State regulation in either case. It must come from the State.

The question, as I understand it, in most cases, is whether State regulation or local regulation is preferable, whether the State should grant this power to a State commission or to the local unit. A careful analysis of what is required of regulation, the equipment you must have to properly provide for adequate service, to properly provide for reasonable rates, and have it when you need it, is so complicated and so costly as to be really out of the question for a local community. It is a matter that must be in the hands of a larger unit, where you can keep people constantly employed, where you have all past experience to be guided by, in order to have it done properly. I have commented on that, and I do not know but what I may be pardoned for reading from my notes briefly, as I think I can shorten the matter up if I may be permitted to do that.

The CHAIRMAN. Do it in your own way, Mr. Erickson.

(Mr. Erickson herewith read part of statement above recorded.)

Mr. ERICKSON. But the heavy cost and lack of requisite facilities and the other shortcomings that have thus been mentioned are not the only obstacles in the way of effective and fair local regulation.

It has been found in Wisconsin, and many other States where I have investigated it, that most of the street-car lines in the cities go beyond the city lines, into the suburbs. The city, of course, would not have jurisdiction except within its boundaries, leaving the other out of the question, unless some outside body took hold of the out-lying property.

Ninety per cent of the telephone companies operate in more than one unit; over one-half, or very nearly one-half, of the water and gas companies extend beyond the city limits into the suburbs; transmission lines are now operating all over the State in often as many as 50 towns. Now, to have local regulation in each one of these units seems almost absurd. One company, for instance, might have to be regulated by 50 local commissions or bodies. That, of course, is out of the question.

Political influences also cut much more of a figure in local regulation than in State regulation. In almost every city, you have factions which are very powerful within the city but are not so when they come to affect State conditions.

The first and principal duty of a regulating body is to do equal justice to all without special favors to anyone. This principle is sound. But it is not always in harmony with the interest of politicians or political groups and factions. Servility to political interests is as bad as servility to financial or other special interests. Few decisions are likely to be sound that are based on political considerations. It is the duty of the State to do its best to keep undue influences away from the commissions, and this is much more easily accomplished under State than under local systems of regulation. If the principle is sound that only such duties should be delegated to the local unit as such unit can do better than the State, then it is also clear that the regulation of utilities is a function that should not be delegated to local units.

(Mr. Erickson again read from statement as above recorded.)

Mr. ERICKSON. Local regulation very often fails to do equal justice to all parts of the city, and particularly as between the utility and the public.

In the State of Wisconsin, the local units, in the first instance, have as much power as the State commission. Nevertheless, hardly any of them ever attempt to exercise it. When they have a complaint, it always comes to the State commission.

The CHAIRMAN. Do you think under your law the State commission and the local tribunals have concurrent jurisdiction?

Mr. ERICKSON. Concurrent jurisdiction.

The CHAIRMAN. But as a matter of fact they always refer the questions to the State commission?

Mr. ERICKSON. I know of very few cases where the local unit attempted to do anything for itself, without throwing the burden upon the State commission. The reasons probably were these—that they wanted to avoid the work, that it looked too big for them; it felt they could not afford experts to do the work, and hence it had to be done by the State commission. In a few cases they did something, like ordering wires underground, or extensions, which afterwards was found to be unconstitutional and thrown over by the courts, but even such cases as those are not numerous. The work was always thrown on the State commission.

Mr. WARREN. Suppose the local tribunal did take up the work, there would still be a finding of the State commission?

Mr. ERICKSON. Yes.

Mr. WARREN. While concurrent, it was not final?

Mr. ERICKSON. It had this advantage in favor of the State commission, that the State commission could pass, in the first instance, upon the act of the local unit, and offset it, if it found it to be unreasonable. We have a few cases where that was done, but not very many, and in all cases where the State commission overturned the ruling of the local body, the State commission was upheld by the courts.

The CHAIRMAN. Does your law specifically provide that an appeal can be taken from an order of regulation or an ordinance of a local tribunal to the State commission?

Mr. ERICKSON. It provides that if it comes to the State commission, it can pass upon it.

The CHAIRMAN. But there is no machinery provided by which they could take a direct appeal?

Mr. ERICKSON. No.

The CHAIRMAN. To the State?

Mr. ERICKSON. Yes; an appeal can be taken by the aggrieved city to the commission.

The CHAIRMAN. Oh, it can?

Mr. ERICKSON. Yes. It has also been said that State regulation is undemocratic. Well, State regulation, of course, must be exercised through the State legislature, the same as local regulation has to be exercised through the city council. Both the State legislature and the city council are elected by the people; and I do not see how they can be any different in the point of view of one thing—one more undemocratic than the other. The local commission would be responsible to the city council. The State commission is responsible to the State legislature, and both are elected by the people. The commissions in both cases are responsible to the legislative body for their acts. I do not see that there can be anything in that statement, that one is more democratic than the other. I looked into it very

carefully from that point of view, because that argument was raised very frequently in our State, but it does not seem to me to have any foundation. So that, on the whole, State regulation is not only more in line with public interest, but State commission regulation has behind it the necessary equipment, the necessary power to do what ought to be done, not only in reducing rates if that is necessary, but in raising rates if that is necessary, which is the case to-day.

Assuming that the utility commissions have, or are given, all the power and all the facilities that are necessary in order to straighten out the street-railway situation, the question immediately arises as to just how to proceed in this work. Several courses may suggest themselves. They may adhere to the usual practice in rate cases, and proceed to investigate the service and determine its needs; to determine the value of the plant and its business; what constitutes reasonable allowances for the operating expenses including depreciation and interest and profits on the fair value of the plant and the business; to determine whether a flat or uniform rate or whether zone rates will best meet the situation; to investigate all other facts and conditions that are involved in the situation or have a closer bearing upon it.

When this work has been completed it should put into effect and enforce such rates as are reasonable under the circumstances, and which under normal conditions and for adequate service are high enough to encourage the necessary capital and other factors of production to come into the electric-railway field. The rate fixed in this way would just about cover the cost of the service. It would in fact be a service-at-cost rate. Rates which are no higher than necessary to obtain the capital and the other factors of production are in fact the lowest service-at-cost rates at which, in the long run, the service can be had.

While this is the usual way in which the commissions proceed in rate cases, and in which service-at-cost rates are established, the work involved therein is so comprehensive as to require more time than can always be safely allowed for this purpose. This is especially true of such readjustments in the rates once established in above manner which become necessary, because of the changes that take place in the cost of the service and in other conditions.

Now, as you know, wages have increased, as well as the prices of material. You will require quick remedies to meet those conditions. A sliding-scale arrangement would seem to be the fairest method of meeting them. The commission could extend its order so as to include a sliding-scale-rate arrangement, by which the rates rose when the cost rose, and fell when the cost fell. Of course, there is a little work in working out that, but that is not very difficult to rate makers or to commissions, with all the help they have.

The CHAIRMAN. Do you think the State commissions, under the laws as they now stand, have the power to make an order for the sliding scale of rates?

Mr. ERICKSON. Some of them have. Most of them have not.

The CHAIRMAN. How about Wisconsin?

Mr. ERICKSON. Wisconsin could do it in a way; but it is not expressly granted to us.

The CHAIRMAN. Ordinarily, the obligation of a commission is to fix a just and reasonable rate?

Mr. ERICKSON. Yes.

The CHAIRMAN. Based upon the conditions then before the commission?

Mr. ERICKSON. Yes.

The CHAIRMAN. Under those conditions and under that State law, how can the commission go to work and make an order the way you suggest?

Mr. ERICKSON. The commission will have to make a subsequent investigation to be within the law, but the Wisconsin Commission has the power to make a sliding-scale arrangement of another sort. That is a profit-sharing arrangement. That is an arrangement under which the rates may be fixed. All earnings above a certain amount, it has been regarded as reasonable, should go to the State or to the city, and under that they can probably make such an arrangement as we have in mind, but most conditions will have to be given additional power, I think.

The CHAIRMAN. That is what I thought.

Mr. ERICKSON. Some commissions could, under the arrangement I speak of, probably, but the safer thing would be additional legislative powers; and still I am not entirely certain or clear on that. That will have to be looked up. Well, such sliding-scale arrangements have many advantages. They operate automatically. They relieve the commission of a great deal of work—that is, actual work, not of supervision—and, of course, it throws upon the commission a certain amount of additional work, on the other hand. It is also possible that arrangements of that kind, once having been made and bound fair, rate changes occurring under them would be more generally accepted by the public than otherwise would be the case. That is particularly true in some cases, if it should be found necessary—I do not advocate it or urge it—to make the city a party to the arrangement. The city, under the final say of the commission, in some cases, might be a party to the contract, in case contracts are necessary to carry it out, but that seems superfluous. However, it might be necessary in some cases, and, if necessary, it might avoid a good deal of trouble. It will give the city what it sometimes cherishes. It will give them a voice in the matter, though not a final decision.

The situation is such that something will have to be done fairly promptly, and it seems that recommendations along these lines might be a great deal of help to the State commissions in working out those problems, particularly as to a sliding-scale arrangement; and if prices are going to continue to rise, or even, if they fall, something of that kind is probably needed as a safeguard, because a full investigation before each rate change requires too much time. Even the readjustment of a value requires too much time.

State commissions, of course, while they are better than local commissions, are not perfect in every way. Many have made serious mistakes. The Wisconsin Commission did. We felt in 1908, 1909, and 1910 that prices had risen about as far as they would. We used the prices of that time as a basis for decisions. It was found that by 1912 and 1913 the rates we made were too low. They did not yield the requisite return. That was true in 1912, one or two years after we had made the decisions. Well, local conditions were such that it was difficult for us to amend our orders without rather long drawn investigations. In the meantime the utilities were earning less than they should earn. Capital began to draw away from these

utilities. The cost of getting capital increased, the service was endangered, although it was upheld in many cases by allowing capital to suffer. So I say the State commissions are not free from errors.

There may also be instances where they have gone too far in favor of the utility; so, though I think there are very few, there may be some. No human institution is perfect; but a State commission is safer than local regulation, because it has the jurisdiction, it has the power to do things, it has a broader view of the field and is able to look at matters upon a very much wider scale than the local unit.

The local unit stands in the forest and sees the trees around it. The State commission is up on the knoll, and can see the whole forest from it; and if the State commission wants to do justice, it is in position to do it. That is not very often true of the local unit. It has not the facilities. It has not the money. It has not the equipment for it.

Mr. WARREN. Mr. Erickson, I judge from what you have said, and also from the memorandum which I took the opportunity to examine, that you are of the opinion that street railways, generally speaking, are in a very desperate situation at this time?

Mr. ERICKSON. Yes, sir; 35 of the leading roads are not now earning more than operating expenses—very little more, if any.

Mr. WARREN. I judge also that you think the sliding scale could be administered sometimes, in some cases, only after further legislation by the State commissions?

Mr. ERICKSON. I think, perhaps, further legislation would be necessary. I am not entirely clear on that, but the chances are that the action of most commissions might be questioned, unless their power was broadened or extended.

Mr. WARREN. And if further legislation is necessary, and even if it is not, the adoption of such a sliding scale would involve considerable time, would it not? Or, let me put it in another way: Do you think that those States, where the authority of the commissions to adopt the sliding scale is questioned, could adopt it quickly enough to afford the relief which many of these companies need?

Mr. ERICKSON. Well, I think a reasonable rate should be put into effect—what is estimated to be a reasonable rate—first, and allowed to stand while all these other matters are being worked out. A sliding-scale arrangement does not require a long time. It is possible that very few commissions would need very much equipment or additional representation to carry it out. Some, I know, would need it.

Mr. WARREN. About the only sliding scale that could be adopted and put into effect quickly would be one which was based on the present rates of fare; would it not?

Mr. ERICKSON. I think not. "Reasonable rates" is a broad term. Maybe I did not understand you.

Mr. WARREN. I say, would not any sliding scale, in order to be adopted quickly, have to be made up on whatever a particular company's present scheme of fares happened to be? If the company to-day is charging 6 cents, they could file a sliding scale going up 6, 7, 8, 9, and 10, or going down, but they could not adopt a sliding scale for a zone system without taking more time than is available?

Mr. ERICKSON. Before the sliding scale can be made operative, you will have to have a reasonable scale based upon existing conditions.

That is absolutely necessary. Then, when the reasonable rate is established, you can supplement it by sliding-scale provisions, and not before, very well.

The CHAIRMAN. Does your sliding scale presuppose a determination of the fixed charges? In other words, does the sliding scale about which you are speaking provide for a certain amount to be paid upon bonds and upon the stock?

Mr. ERICKSON. The sliding scale such as I have in mind provides for a reasonable return upon the fair value of the property.

Mr. WARREN. That is, for the cost of service?

Mr. ERICKSON. That represents the cost of service. The cost of service in any business is a reasonable return after all the factors for labor, for material, for depreciation, for returns upon investment, such as will bring these factors into the business, such as will bring you what additional capital you need.

The CHAIRMAN. But in the Cleveland plan, the money to be paid for the bonds and stock is definitely fixed?

Mr. ERICKSON. Yes.

The CHAIRMAN. And it can not be changed unless the contract is changed. Now, does your sliding-scale plan contemplate such an arrangement as that?

Mr. ERICKSON. The sliding scale that I have in mind means this: You first have to determine what is a fair return upon the investment and for depreciation, as conditions now exist. Then provide for as much as, on account of changed conditions, you fail to enable the company to earn the returns which you had agreed upon.

The CHAIRMAN. But under your plan, the amount of the returns may vary according to the conditions, according to the cost of money, the interest rate, in certain territory, and things of that kind?

Mr. ERICKSON. It may be that it will come to that, and it could be made to include that. However, if you have a rate to-day it would yield what was deemed to be a fair return, and if you found because of a sliding-scale arrangement the money could be had at a lower cost, those facts could be determined and the rate adjusted to cover that, as well as to cover such additions to the capital as are required for new extensions, and such extra costs of the service as were brought about by the new extensions. Those are questions to be determined by the State commission, the same as the cost of the operation, and they can be. It is a question of work in either case, but it is not work that can not be done, but it can not be done safely, I think, without a fairly close study and by a strong commission.

Mr. WARREN. Do I understand that before that is done, you think some sort of immediate relief ought to be given the companies in the way of an increased rate?

Mr. ERICKSON. Well, I think that is absolutely necessary in perhaps 90 per cent of the cases in the country, because they are now earning very little more than the operating expenses, and that can not go on except at the expense of the service and of the company.

Mr. WARREN. I am very much obligated to you, Mr. Erickson.

I will file this with the reporter, Mr. Chairman [referring to Mr. Erickson's report before the United States Chamber of Commerce].

The CHAIRMAN. If you please.

Mr. WARREN. I have a few documents that I would like to put in the record, to close, so far as I can.

There is a list of companies used in the wage rates in reference to the cost of labor, Chart C-133. There are sufficient copies for all members of the board. I will hand them around [handing copies to the members of the commission].

Mr. ERICKSON. I have summarized most of the things, because my time was so short, and I did not want to take any more time than was necessary.

Mr. WARREN. Then I have here a document that I have referred to before three or four times. It is a statement from the secretary of the Public Service Commission of Massachusetts, showing the balance sheet at the end of 1918, with a deficit of over \$4,000,000 on the aggregate street railways, showing the revenues and operating expenses and other charges, with a deficit for the year of \$5,000,000, and miscellaneous data, such as mileage.

I would like to have that go into the record.

The CHAIRMAN. Yes.

The statement thus referred to by Mr. Warren is as follows:

The attached statement of assets and liabilities, revenues and expenses and miscellaneous data, pertaining to street railways in Massachusetts, is a true copy of the figures on file in the office of the commission.

Attest:

[SEAL.]

ANDREW A. HIGHLANDS, *Secretary*.

Assets and liabilities of street-railway companies in Massachusetts as of December 31, 1916.

ASSETS.

Cost of railway-----	\$118,837,985.29	
Cost of equipment-----	41,707,159.13	
Cost of land and buildings-----	50,739,028.03	
Cost of other permanent investments-----	1,582,552.45	
Total cost of permanent investments-----		\$212,866,724.90
Sinking funds-----	317,686.80	
Miscellaneous physical property-----	1,274,899.38	
Investments-----	2,293,782.40	
Current assets-----	14,701,154.01	
Deferred assets-----	1,043,715.54	
Unadjusted debits-----	9,162,773.73	
		28,794,011.86
Grand total-----		241,660,736.76

LIABILITIES.

Common stock-----	88,217,375.00	
Preferred stock-----	18,673,500.00	
		106,890,875.00
Premium on capital stock-----		6,675,651.04
Funded debt-----		91,547,200.00
Nonnegotiable debt to affiliated companies-----		1,214,948.88
Current liabilities-----	27,178,978.73	
Deferred liabilities-----	407,135.17	
Unadjusted credits-----	11,846,869.19	
		39,432,986.09
Appropriated surplus-----		267,567.40
Profit and loss-----		4,368,491.65
Grand total-----		241,660,736.76

Revenues and expenses of street railways in Massachusetts for year ended December 31, 1918.

Revenues:

Passenger revenue	\$43,092,044.59
Parlor and special car revenue	75,157.28
Mail revenue	41,852.84
Express and baggage revenue	175,625.72
Milk revenue	15,437.86
Freight revenue	1,072,329.69
Miscellaneous transportation revenue	20,811.87

Total from transportation	\$44,493,259.85
Total revenue from operations other than transportation	1,245,835.50

45,739,095.35

Operating expenses:

Way and structures	\$4,876,039.34
Equipment	6,358,450.94
Power	7,621,089.19
Conducting transportation	16,332,111.33
Traffic	41,630.15
General and miscellaneous	4,978,561.31

Grand total	40,217,882.26
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Net revenue railway operations	5,521,213.09
Net revenue, auxiliary operations	127,845.73

Net operating revenue	5,649,058.82
Taxes assignable to railway operations	2,018,482.13

Operating income	3,630,626.69
Income from lease of road	2,651,675.58
Miscellaneous nonoperating income	176,549.63
	2,828,225.21

Gross income	6,458,851.90
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Deductions:

Rent of lease of roads	3,022,873.70
Interest on funded debt	4,143,930.47
Interest on unfunded debt	991,309.89
Amortization of discount on funded debt	58,172.48
Maintenance of organization	10,355.94
Miscellaneous debits	1,091,126.42

Total deductions	9,317,768.90
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Net income	2,858,917.00
Dividends declared	2,440,834.24

Deficit for year	5,299,751.24
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Miscellaneous data.

Railway owned	2,311.518
Second main track owned	535.447

Total main track owned	2,846.965
Sidings and switches owned	204.692

Total track owned	3,051.657
Leased main track and trackage rights	596.525
Total main track operated	2,913.293

Number of revenue passengers carried.....	583,485,256
Number of free transfer passengers carried.....	340,394,004
Total passengers carried.....	923,879,260
Passenger car-miles.....	117,746,278
Other revenue car-miles.....	2,102,478
Total revenue car-miles.....	119,848,756
Passenger car-hours.....	11,815,191
Other revenue car-hours.....	313,152
Total revenue car-hours.....	12,128,343
Operating revenue per car-mile.....cents.....	38.17
Operating expenses per car-mile.....do.....	33.56
Operating revenue per car-hour.....	\$3.77
Operating expenses per car-hour.....	\$3.31
Ratio of operating expenses to operating revenues.....per cent.....	87.93
Percentage of dividends declared.....do.....	2.28

The CHAIRMAN. Was it your thought that Mr. Erickson's contribution to the chamber of commerce should go into the record or simply be filed with the commission?

Mr. WARREN. I thought that it might go into the record in connection with that balance sheet, which was taken from the census report for all of the companies of the country, but if you think it would encumber the record, it might as well be filed.

The CHAIRMAN. I do not want to have the record too large, of course.

Mr. WARREN. No; and I do not.

The other two documents are the combined balance sheet of the electric railways of the country, made for the census.

The CHAIRMAN. They ought to go into the record.

Mr. WARREN. Yes, sir.

The CHAIRMAN. And also the operating expenses?

Mr. WARREN. Yes, sir.

(The documents thus referred to will be found incorporated in this record, at pages 973 to 985, and 992 to 994.)

Mr. WARREN. Then, we were asked for the classification of accounts for electric railways, and we have six copies of those.

We were also asked for a list of the 345 companies responding to the American Electric Railway Association's data sheet, No. 186. This is shown on Chart C-100, and I have five copies of that.

We were also asked for copies of the questionnaire which was sent to the member companies of the Association for information concerning taxes and other State, municipal, and Federal requirements; and I have a large number of copies of that.

That concludes our evidence, Mr. Chairman, and we wish to thank you very sincerely for your kindness, your attention and your patience in hearing us during this hot, muggy weather, and at such great length. We would not have thought of trespassing upon your time if we had not felt the very desperate condition in which our companies are placed.

I assume that after the close of the hearing we shall have an opportunity to present a summary of our views of the evidence, and submit a brief.

The CHAIRMAN. Surely.

The commission is very grateful to you, Mr. Warren, and to your associates for your patient attendance and close attention to the very important business before us. We feel like apologizing for having been with you from 10 o'clock in the morning until 10 o'clock at night, but we think the magnitude of the problem rather justified the action.

We now stand adjourned until August 4, unless otherwise advised.

(Whereupon, at 5.30 o'clock p. m., on July 25, 1919, the further hearing of this case was adjourned until Monday, Aug. 4, 1919, at 10 o'clock a. m.)





